



DEPARTMENT OF ENVIRONMENTAL QUALITY

KATHLEEN BABINEAUX BLANCO
GOVERNOR

MAR 14 2007

MIKE D. McDANIEL, Ph.D.
SECRETARY

CERTIFIED MAIL 7003 2260 0005 9326 9716
RETURN SERVICE REQUESTED

Mr. Wade P. Scott
Killona Ventures L.L.C.
Post Office Box 620
Hahnville, Louisiana 70057

RE: Notice of Technical Completeness
Major Modification - Change in Vertical Elevation
Killona Ventures L.L.C.
Type III Construction and Demolition Debris Landfill
AI # 92039/D-089-11377/P-0355/ PER20060002
St. Charles Parish

Dear Mr. Scott:

The Waste Permits Division is in receipt of the final copies of your submittal dated February 14, 2007. After review of this submittal, it has been determined that your permit renewal is technically complete and ready for public review.

The Environmental Assistance Division will distribute copies of your application for public review and place public notices in the appropriate newspapers in accordance with LAC 33:VII.513.F.3. Please contact Ms. Soumaya Ghosn at (225) 219-3276 for the date of publication and the dates for the comment period. At the conclusion of the comment period, the Waste Permits Division will consider all comments and a decision will be made regarding your application.

Please reference Agency Interest Number 92039, Permit Number P-0355, Permit Activity Number PER20060002 and Site Identification Number GD-089-11377 on all future correspondence pertaining to this facility. If you have any questions concerning this matter, please contact Mr. Curt A. Auzenne of the Waste Services Section at (225) 219-3060.

Sincerely,

Bijan Sharafkhani, P.E.
Administrator
Waste Permits Division

caa

c: Southeast Regional Office
Robert L. Harris, Tetra Tech EM Inc.

ENVIRONMENTAL SERVICES
: PO BOX 4313, BATON ROUGE, LA 70821-4313
P:225-219-3181 F:225-219-3309
WWW.DEQ.LOUISIANA.GOV

original to IOSWcopy to SW/G1/Townsel
AVG

COPY

Tetra Tech EM Inc.

11955 Lakeland Park Blvd., Suite 100 ♦ Baton Rouge, LA 70809 ♦ (225) 753-4949 ♦ FAX (225) 753-5404

February 13, 2007

Mr. Bijan Sharafkhani
Louisiana Department of Environmental Quality
Office of Environmental Services, Permits Division
Post Office Box 4313
Baton Rouge, Louisiana 70821-4313

RECEIVED
FEB 14 2007

LDEQ

RE: Solid Waste Permit Modification
Killona Ventures Landfill
5900 LA Highway 3127
Killona, Louisiana 70066
Site ID No.: D-089-11377; Permit No.: P-0355
Permit Activity No.: PER20060002
✓ Agency Interest No.: 92039
Tetra Tech EM Inc. Project No.: P4060

Dear Mr. Sharafkhani:

Tetra Tech EM Inc. (Tetra Tech), on behalf of Killona Ventures, LLC (Killona Ventures), is pleased to present this solid waste permit modification to the Louisiana Department of Environmental Quality (LDEQ). Killona Ventures received the Standard Permit P-0355 to operate the Killona Landfill on May 3, 2002. The Order Authorizing Commencement of Operation was signed by the LDEQ on May 24, 2002. Killona Ventures wishes to modify this permit at this time.

Tetra Tech has prepared this permit modification by addressing the specific requirements in the operating permit that requires modification. Tetra Tech has provided the applicable regulation, followed by the modified response to the regulation. The proposed modified language is bolded. The purpose of this permit modification is as follows:

- To extend the vertical elevation of the landfill from 17.5 feet to 125 feet;
- To extend the operational time of the landfill from twelve (12) hours per day, six (6) days per week, to twenty-four (24) hours per day, seven (7) days per week;
- To modify the amount of waste processed and disposed at the facility by receiving fifteen (15) to twenty-two (22) truckloads per day or 7,000 - 8,000 cubic yards per day, to a maximum of five hundred (500) truckloads per day or 44,500 cubic yards per day; and,

- To modify the maximum quantity of construction and demolition (C&D) waste processed/disposed at the facility from 2,504,000 cubic yards per year (794,920 wet tons) to 16,242,500 cubic yards per year (5,156,349 wet tons).

Killona Ventures operates the Killona Ventures Landfill as permitted in 2002 by the LDEQ. The Killona Landfill is a Type III construction and demolition debris landfill facility. Killona Ventures is interested in assisting the local community by processing and disposing of C&D waste generated from the demolition activities currently ongoing in the New Orleans, Louisiana area created by Hurricane Katrina. The requests to extend the operating hours, volume of C&D waste processing and disposal, and vertical elevation of the landfill is needed to provide this service. Killona Ventures does not anticipate that the extended hours and daily volume of waste receipt will be required for an extended period of time; however, the amount of C&D waste being generated in the New Orleans area is more than can be handled at this time.

The LDEQ approval of the Killona Landfill permit modification will also reduce the trucking time, fuel consumption, and tractor trailer emissions currently occurring to transport C&D waste to other facilities.

Tetra Tech and Killona Ventures hope that the information provided in this solid waste permit modification request meets the requirements of the LDEQ. Killona Ventures is anxious to serve the local community by processing and disposing the tremendous amount of C&D waste generated as a result of the destruction caused by Hurricane Katrina. An expedited review of this permit modification is requested in order to provide this service.

Tetra Tech and Killona Ventures appreciate the opportunity to provide this information to the LDEQ. If you have any questions or require additional information regarding this permit modification request, please contact Tetra Tech at (225) 753-4949.

Sincerely,

TETRA TECH EM INC.



Robert L. Harris, PG, CHMM
Operations Manager

RLH:

Attachments: Solid Waste Permit Modification (6 bound copies)

Cc: Mr. Lenard Pigott, Killona Ventures LLC

KILLONA VENTURES, LLC
SOLID WASTE PERMIT MODIFICATION

KILLONA VENTURES LANDFILL
5900 LA HIGHWAY 3127
KILLONA, ST. CHARLES PARISH, LOUISIANA

LDEQ AGENCY INTEREST NO.: 92039

PERMIT ACTIVITY NO.: PER20060002

SITE ID NO.: D-089-11378

PERMIT NO.: P-0355

Prepared For

Killona Ventures, LLC
Post Office Box 620
Hahnville, Louisiana 70057

RECEIVED

FEB 14 2007

Prepared By

LDEQ

Tetra Tech EM Inc.
11955 Lakeland Park Blvd., Suite 100
Baton Rouge, Louisiana 70809
(225) 753-4949

FEBRUARY 13, 2007



KILLONA VENTURES, LLC
SOLID WASTE PERMIT MODIFICATION

KILLONA VENTURES LANDFILL
5900 LA HIGHWAY 3127
KILLONA, ST. CHARLES PARISH, LOUISIANA

LDEQ AGENCY INTEREST NO.: 92039

PERMIT ACTIVITY NO.: PER20060002

SITE ID NO.: D-089-11378

PERMIT NO.: P-0355

Prepared By

Tetra Tech EM Inc.
11955 Lakeland Park Blvd., Suite 100
Baton Rouge, Louisiana 70809
(225) 753-4949


Robert L. Harris, PG, CHMM
Operations Manager

FEBRUARY 13, 2007



**KILLONA VENTURES, LLC
KILLONA VENTURES LANDFILL
5900 LA HIGHWAY 3127
KILLONA, LOUISIANA**

**AGENCY INTEREST NO.: 92039
SITE IDENTIFICATION NO.: D-089-11377
PERMIT ACTIVITY NO.: PER20060002
PERMIT NO.: P-0355**

SOLID WASTE PERMIT MODIFICATION

FEBRUARY 13, 2007

The following lists the applicable solid waste regulation as described in Title 33, Part VII, Subpart 1, followed by the revised permit language requested in the permit modification. The modified language is bolded and addresses the requirements of the specific regulation.

Part I: Solid Waste Permit Application

O. Types, Quantities, and Sources of Waste:

Processing
Other: 7,000 - 8,000 yd³/ day

Disposal
Other: 7,000 - 8,000 yd³/ day

Part I: Solid Waste Permit Application

O. Types, Quantities, and Sources of Waste:

Processing
Other: 7,000 cubic yards per day - 44,500 cubic yards per day

Disposal
Other: 7,000 cubic yards per day - 44,500 cubic yards per day

521.F.3 Facility Plans and Specifications. Standards governing facility plans and specifications are contained in LAC 33:VII.721.A (Type III construction and demolition debris and woodwaste landfills). The following information on plans and specifications is required for Type I, II, and III landfills:

a. approximate dimensions of daily fill and cover

The exposed work face will not exceed 4.5 acres per day. Based on a maximum of 500 truckloads or 44,500 cubic yards of debris arriving at the landfill each day, Killona will compact the waste in 2 foot lifts over 4.5 acres. Compaction is based on a 4:1 compaction ratio of the waste material (8 feet of waste compacted to 2 feet). The waste will be covered with 12 inches of silty clay at least every 30 days. However, Killona covers waste material each day. The work face will be minimized to provide an aesthetic appearance to the landfill; allow accessibility to the landfill; minimize erosion, and reduce fire hazard potential. The amount of waste received and the size of the work face will likely decline after demolition work from Hurricane Katrina is completed.

521.F.3.b the type of cover material and its source for daily, interim, and final cover. Calculations shall be submitted demonstrating that an adequate volume of material is available for daily, interim, and final cover.

As stated in the original permit application, a significant amount of silty clay is currently available at the facility. A stockpile of cover material has been produced by excavating the base of the landfill, installing drainage systems, and cleaning out ditches adjacent to the landfill. Additional cover material is available from the area between the landfill and Highway 3127. Other sources of cover material are also available at the site. If additional cover material is required for final closure, suitable material is available from off-site locations in close proximity to the site. The maximum material requirements for daily, interim 30 days, and the final Cap covers are provided on the following table.

MAXIMUM COVER MATERIAL REQUIREMENTS

Cover Material Requirements	Source of Cover	Thickness (Feet)	Surface Area (Acres)	Volume (Cubic Yards)
Daily Cover	On-site	1	4.5	7,260
Interim 30 Day Cover	On-Site	1	135*	217,800
Final Cap	On-site	2	91**	293,627
TOTAL	On-site			518,687

Cover Material Requirements	Source of Cover	Thickness (Feet)	Surface Area (Acres)	Volume (Cubic Yards)
Cover Material Available	On-site	10***	65	1,048,667
Surplus Cover Material	On-Site			529,980

* Based on covering 4.5 acres per day for 30 days; total surface area.

** Based on 3,965,000 square feet of landfill surface area requiring final cover.

*** Based on 10 feet of excavated material produced during construction of the landfill.

521.G.1 Facility Administrative Procedures. Standards governing administrative procedures are contained in LAC 33:VII.711.C (Type I and II landfills), LAC 33:VII.713.C (Type I and II surface impoundments), LAC 33:VII.715.C (Type I and II landfarms), LAC 33:VII.717.F (Type I-A and II-A facilities), LAC 33:VII.721.B (Type III construction and demolition debris and woodwaste landfills), LAC 33:VII.723.B (Type III composting facilities), and LAC 33:VII.725.B (Type III separation facilities). The following information on administrative procedures is required for all facilities.

c. maximum days of operation per week and per facility operating (maximum hours of operation within a 24-hour period).

The maximum hours of operation will be twenty-four (24) hours per day, seven (7) days per week. The facility may choose to restrict operating hours to less than the maximum hours of operation.

521.H.1.a Facility Operational Plans. Standards governing facility operation plans are contained in LAC 33:VII.711.D (Type I and II landfills), LAC 33:VII.713.D (Type I and II surface impoundments), LAC 33:VII.715.D (Type I and II landfarms), LAC 33:VII.717.G (Type I-A and II-A facilities), LAC 33:VII.721.C (Type III construction and demolition debris and woodwaste landfills), LAC 33:VII.723.C (Type III composting facilities), and LAC 33:VII.725.C (Type III separation facilities). The following information on operational plans is required for all facilities.

a. types of waste (including chemical, physical, and biological characteristics of industrial wastes generated on-site), maximum quantities of wastes per year, and sources of waste to be processed or disposed of at the facility:

The maximum quantity of construction and demolition waste that will be accepted per year is 16,242,500 cubic yards (5,156,349 wet tons).

c. minimum equipment to be furnished at the facility.

The facility will furnish and maintain, at a minimum, three (3) bulldozers, two (2) excavators, one (1) loader, 1 track truck, 1 water truck, and 1 bobcat. This equipment will be utilized as necessary to prepare the disposal area, spread and compact waste, and cover waste as required to maintain landfill operations.

521.J.1 Facility Closure. Standards governing facility closure are contained in LAC 33:VII.721.D (construction and demolition debris and wastewood landfills). The closure plan for all facilities must include the following:

c. the estimated cost of closure of the facility, based on the cost of hiring a third party to close the facility at the point in the facility's operating life when the extent and manner of its operation would make closure the most expensive.

As discussed in 521.F.3.b, the amount of waste entering the facility at the time of closure will likely be minimal upon completion of demolition work associated with Hurricane Katrina. Therefore, closure cost are based upon regrading waste from the final 4.5 acre landfill cell and covering it with 24 inches of clay, 6 inches of topsoil, and a vegetative cover (grass seed). The estimated closure cost of the facility is based on hiring a third party to close the facility at the point in the facility's operating life when the extent and manner of its operation would make closure the most expensive. The estimated closure cost is \$219,204. The breakdown of this cost is provided on the following table.

CLOSURE COST

Item	Quantity	Rate	Total Cost
Mobilize / Demobilize	1	\$6,000	\$6,000
Regrade Waste	14,520 yds ³	\$1.75	\$25,410
Off-site source of Clay Cover	14,520 yds ³	\$7.50	\$108,900
Install 24" Clay Cover	14,520 yds ³	\$3.50	\$50,820
Install 6" Layer of Top Soil	3,780 yds ³	\$5.35	\$20,223
Install Vegetative Cover	196,020 ft ²	\$0.04	\$7,841
TOTAL COST			\$219,204

521.J.3 Facility Closure. The closure plan for all Type I and II facilities and Type II woodwaste and construction/demolition debris facilities shall include the following:

- b. a drawing showing final contours of each unit of the facility, as applicable.

The largest area requiring final cover at one time will be 4.5 acres as provided for in the closure cost estimate provided in the response to 521.J.1.c. A surface elevation map with contours illustrating the final contours of the landfill area at closure is provided as Figure 7.

521.K.1 Facility Post-Closure. Standards governing post-closure requirements are contained in LAC 33:VII.721.E (Type III construction and demolition debris and wastewood landfills). The closure plan for all facilities must include the following:

- b. the cost of conducting post-closure of the facility, based on the estimated cost of hiring a third party to conduct post-closure activities in accordance with the closure plan.

Post-Closure costs have been revised to reflect the change in landfill elevation, which increases the surface area of the landfill described in the permit. The estimated cost for three (3) years of post-closure care is \$69,000. The breakdown of this cost is provided on the following table.

POST-CLOSURE COST

Item	Quantity	Rate	Total Cost
Mowing	8	\$2,000	\$16,000
Cover Maintenance	2	\$3,000	\$6,000
Annual Report	1	\$1,000	\$1,000
Sub Total			\$23,000 per year
X 3 years			
TOTAL COST			\$69,000

521.L. Financial Responsibility. Standards governing financial responsibility are contained in LAC 33:VII.727. A section documenting financial responsibility according to LAC 33:VII.727 which contains the following information must be included for all facilities:

1. the name and address of the person who currently owns the land and the name and address of the person who will own the land if the standard permit is granted; or,

The owner of the land is Killona Ventures, LLC located at 5900 Highway 3127 in Killona, Louisiana 70066. The current owners are Lenard Pigott of Sunny Day Financial, LLC of Nevada, and Wade Scott.

2. the name of the agency or public body that is requesting the standard permit; or if the agency is a public corporation, its published annual report; or if otherwise, the names and principal owners, stockholders, general partners, or officers;

Not applicable; Killona Ventures, LLC is not an agency, public body, or public corporation.

3. evidence of liability coverage including:
 - a. personal injury, employees, and the public (coverage, carriers, and any exclusions or, limitations);
 - b. property damage (coverage and carrier);
 - c. environmental risks; and

Killona ventures will provide updated liability coverage meeting the limits specified in 727.A.c within thirty (30) days upon receipt of the permit modification approval from the administrative authority.

4. evidence of financial assurance mechanism for closure and/or post-closure care and corrective action for known releases when needed.

Killona Ventures, LLC will update the financial assurance mechanism for closure and post-closure care cost as specified in 727.A.2 within thirty (30) days upon receipt of the permit modification approval by the administrative authority. Upon determination by the administrative authority that the facility has completed closure in accordance with the approved closure plan, the administrative authority may release the closure funds to the permit holder.

Figures – Provide erosion control measures, such as benches and terraces, to control erosion on the slopes. Show these features on a figure and provide cross sections as needed.

Figure 7 has been modified to illustrate elevation contours of the landfill. Figure 7A is provided and illustrates the cross sections of the landfill at the time of closure. Benches will be utilized to slow the rate of surface water run-off. The bench design is provided on Figure 7A. Rainwater will likely accumulate on the terrace areas of the benches on the landfill. The surface of the landfill will be sloped in a manner to drain the terraces to strategic areas on the sides of the landfill and serve as a collection area for the rainwater. These collection areas will contain concrete rubble that will prevent erosion of the landfill cover. Eight (8) inch diameter poly piping will be placed in the bottom of the rainwater collection areas and will drain

the rainwater to the bottom of the landfill. The rainwater will be piped to the surrounding stormwater ditch system that drains the facility.

Please provide the background information used to analyze the stability of the proposed height. Provide justification demonstrating the locations chosen to represent the most critical location.

The data used to develop the input parameters to execute the GSTABL7 model are provided on the soil boring logs provided in Appendix A. The location of the soil borings and a cross section of the stratigraphy at the site are provided in Appendix A. The soil boring logs were developed by others during the initial permitting process for the Killona facility. A copy of the geotechnical report is provided in Appendix A.

ATTACHMENTS

1701 Form

Supplemental Information as required by LAC 523 (IT Questions and Responses)

Proof of Registration with the Secretary of State

LDEQ Correspondence

APPENDIX

Appendix A - Geotechnical Report with Attachments

FIGURES

Figure 7 - Site Plan

Figure 7A - Cross Sections

ATTACHMENTS

1701 FORM

Media Type (check one)


Hazardous Waste ☐ Air ☐
 Solid Waste ☒ Water ☐
 Radiation Licensing ☐

Agency Interest Number: 92039

Is this a copy of a previously submitted form? Yes ☐ No ☒

If yes, indicate the original submittal date: _____

If yes, indicate the original permit number: _____

Department of Environmental Quality Permits Division P.O. Box 4313 Baton Rouge, LA 70821-4313 (225) 219-3181		Addendum to Permit Applications per LAC 33:I.1701			
Please Type Or Print	Company Name		<input checked="" type="checkbox"/> Owner	For Permits Division Use Only	
	Killona Ventures, LLC		<input checked="" type="checkbox"/> Operator		
	Parent Company (if Company Name given above is a division)				
	Plant name (if any) Killona Ventures Landfill				
	Nearest town Killona	Parish where located St. Charles			

1. Does the company or owner have federal or state environmental permits identical to, or of a similar nature to, the permit for which you are applying in other states? (This requirement applies to all individuals, partnerships, corporations, or other entities who own a controlling interest of 50% or more in your company, or who participate in the environmental management of the facility for an entity applying for the permit or an ownership interest in the permit.)

☒ Permits in Louisiana. List Permit Numbers: P-0355

☐ Permits in other states (list states): _____

2. Do you owe any outstanding fees or final penalties to the Department? No ☒ Yes ☐
 If yes, please explain. _____

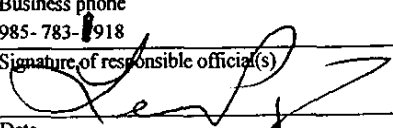
3. Is your company a corporation or limited liability company? No ☐ Yes ☒ If yes, attach a copy of your company's Certificate of Registration and/or Certificate of Good Standing from the Secretary of State.

Certification:

I certify, under provisions in Louisiana and United States law which provide criminal penalties for false statements, that based on information and belief formed after reasonable inquiry, the statements and information contained in this Addendum to the Permit Application, including all attachments thereto are true, accurate, and complete.

Responsible Official

Name
Leonard Pigott
Title
Managing Member
Company
Killona Ventures, LLC
Suite, mail drop, or division
Street or P.O. Box
5900 LA Highway 3127

City	State	Zip
Killona	LA	70057
Business phone		
985-783-1918		
Signature of responsible official(s)		
		
Date		
10-11-06		

IT QUESTIONS REPONSES

**KILLONA VENTURES, LLC
KILLONA VENTURES LANDFILL
5900 LA HIGHWAY 3127
KILLONA, LOUISIANA**

SOLID WASTE PERMIT MODIFICATION

Supplementary Information as required by LAC 523

IT QUESTIONS AND RESPONSES

The following supplemental information is required for all solid waste processing and disposal facilities.

523 A. A discussion demonstrating that the potential and real adverse environmental effects of the facility have been avoided to the maximum extent possible;

The potential and real adverse environmental effects of the Killona Ventures C & D landfill have been avoided to the maximum extent possible.

The environmental effects of the waste at this facility are low. Waste disposed at this facility will be construction and demolition (C & D) debris from demolition, renovation, or construction projects in the surrounding area.

C & D wastes (such as concrete, asphalt, wood, wallboard, and floor tile roofing, tree stumps, rocks, and dirt etc.) are non-putrusable and cannot rot to produce odors and attract vermin. The facility has little real potential to impact the environment by producing odors or attracting pests. However, to minimize potential environmental effects, C&D landfills are designed, operated and located to prevent potential environmental effects.

Environmental effects of landfill operation include possible releases to air, water, soil, and economic & social impacts;

Air:

- Potential releases to air from C & D debris facilities occur in the form of dust and wind-blown materials. Application of cover soil/material prevents releases of odors and wind-blown debris. Dust at the facility will be controlled by covering/capping the waste with clay and planting vegetation (i.e. grass) spreading gravel, and wetting down areas.**

Water:

- Rainfall on C & D debris will runoff over concrete, asphalt, wood, wallboard, floor tile, roofing, tree stumps, rocks, and dirt etc. Most of these building materials are not water-soluble. Therefore, the potential for ground water contamination is remote.
- To further assure ground water protection the bottom of the landfill has an engineered clay liner (see Attachment 3) to prevent this rainwater entering the ground water.
- The perimeter of the landfill has a five (5) to ten (10) feet embankment/dyke to prevent rainwater runoff from migrating off the facility. High levels of water in the facility will be pumped out only if the water quality standards meet discharge permit levels protective of human health and the environment.

Habitat:

- The existing site has already been cleared by the removal of soil and clay from the burrow pit. Consequently there is little natural habitat on the present site. The utilization of this facility as a C & D debris disposal facility will not result in any further destruction of habitat.
- The US Department of the Interior has determined that threatened or endangered species will not be threatened by the proposed facility.
- The State Historical Preservation Officer has determined that there are no known cultural or historical sites in the vicinity of the site.
- The US Army Corps of Engineers have determined that sensitive wetlands will not be affected by the proposed facility.

Impact of proposed facility on potential contamination at existing site:

- As indicated under zoning, the proposed site is located close to the heavy chemical/nuclear industrial complex of Waterford/Taft Louisiana. However, the site *does not* contain historical/hidden waste that could be released to environment during operation/excavation activities. Soil borings at the site did not detect any unauthorized buried drums or chemical waste pits that could have been utilized to illegally or inadvertently dispose of waste at the site by the local chemical industry.

Economic & Social impacts:

- Letters from the Louisiana Department of Transportation and Development are attached indicating that the local roads are adequate to withstand both the flow and weight of trucks entering the facility.
- A letter from the zoning authority indicating that the proposed site is classified as heavy industrial due to the large number of chemical and power plants located within 1 mile of the town of Killona.
- Investigation of the adjacent community within a 1 mile radius of the

facility indicates the nearest facility to the site is the St. Charles Parish Prison. It is anticipated that the only potential impact the proposed facility will have on the inmates is the passage of trucks to the landfill. It is not anticipated that these trucks will discomfort the inmates with odors, vibration, or noise any more than other large trucks on the highway. Therefore, it is reasonable to state that the inmate population will not be disproportionately burdened by measurable impacts should the site be permitted as a C & D land fill.

- In summary, real impacts have been avoided by only applying to dispose C & D debris at the proposed site. Hazardous or other types of solid waste will not be accepted at this facility. Potential effects have been avoided by designing the landfill with caps (to prevent dust becoming wind blown); clays liners (to protect the ground water); and dykes (to protect surface water), and through appropriate siting away from sensitive environmental areas in an area zoned for industrial use.

523 B. A cost-benefit analysis demonstrating that the social and economic benefits of the facility outweigh the environmental impact costs.

The environmental effects of the facility have been avoided to the maximum extent possible through the acceptance of low risk building waste, proper landfill design to minimize impacts, and appropriate siting in an industrial area away from sensitive communities/habitats.

The following benefits have been considered in planning this facility:

- Payroll:- facility operations will require an estimated eight (8) full time employees with an annual payroll of approximately \$225,000.
- Facilitate growth through reduced transportation costs:- the proposed facility location is on the St. Charles/St. John Parish line. The facility will provide contractors with a cost-effective way to manage C & D debris generated during site clearing, construction, renovation or demolition activities. The nearest alternative, in-parish, disposal facility is located to the north in Norco, Louisiana. It is our understanding from LDEQ that there is not a C & D landfill to the west before reaching Baton Rouge. There are several C & D landfills to the east in New Orleans. It is our understanding from LDEQ that there is not a C&D landfill to the South in Lafourche Parish.

The economic effects of reduced haulage to the nearest C&D landfill are estimated based on typical truck haulage rates at \$50/hour. Siting this facility in Killona (approximately 1 hour from adjacent C & D landfills in

Norco, New Orleans and Baton Rouge) will save a minimum of \$275,500 based on 22 trucks per day, which could utilize the Killona C & D landfill.

22 trucks per day x 1 hour saved/trip x \$50/hour x 5 days/week x 50 weeks/year = \$275,000 in avoided transportation costs.

These avoided transportation costs will benefit construction, renovation, and demolition contractors in West St. Charles Parish, East St John Parish, and surrounding areas to the South. This saving will also conserve fuel supplies and reduce emissions to the atmosphere from truck exhaust.

- Generation of burrow material for the Improvement of the Parish. - It is calculated that excavation of a 64 acre C & D landfill will generate approximately 734,067 cubic yards of soil/clay over 10 years. This material will be used to improve the Parish by providing fill and dike material.

- There should be no increased burden in public costs for police or fire protection, or road costs associated with facility operation. Letters from the local emergency response agency, fire department, and hospital are provided stating that they can respond to an incident at the facility. The majority of the debris received at the site will be transported by truck. The Louisiana Department of Transportation and Development has determined that the local roads are adequate for the anticipated facility truck traffic flow and weight. Therefore, there will be no burden on the Parish to improve the highway.

In summary, a cost-benefit analysis of the environmental impact cost balanced against the social and economic benefits of the project demonstrate that the social and economic benefits outweigh the environmental impacts. This is primarily due to the evidence that C & D landfill material poses little environmental risk.

523 C. A discussion and description of possible alternative projects which would offer more protection to the environment without unduly curtailing non-environmental benefits.

Alternate projects for C & D waste disposal have been considered.

- **Municipal Landfill Project**

A large amount of C & D waste was placed in municipal solid waste landfills in 1996 (up to 40%). However, as an alternate project, a municipal landfill was rejected by Killona Ventures, LLC. Killona Ventures, LLC does

not wish to apply for a permit for a sanitary landfill in Killona. Special precautions above and beyond C & D landfills are required to keep birds, vermin and odors under control at a sanitary landfill. As such, a sanitary landfill potentially poses more risk to the environment.

- **Incineration Project**

Incineration is a project that would be more protective to the environment in terms of solid waste reduction. This would occur by burning all the wood going to the C & D landfill. However, although this waste volume reduction would be real, the cost to install and permit an incinerator to burn wood, and to install and permit a landfill for the non-burnable concrete/bricks make the project impractical. Furthermore, St. Charles Parish officials have voiced concerns over any burning/combustion of waste in the Killona area.

- **Composting project**

Composting will be more protective to the environment in terms of solid waste reduction. This would occur by composting wood waste for use as fertilizer, thereby, reducing the volume of waste going to the C&D landfill. However, although this volume reduction would be real, a landfill would still be required for the non-compostable C & D waste such as brick, concrete, etc.

- **Recycle Projects**

Killona Ventures, LLC C & D landfill will handle mixed waste that it is not feasible to separate. This mixed waste may include small amounts of pipe/steel and or concrete. Generators of scrap steel will profit by taking their metal waste to companies such as Bayou Steel in LaPlace. Similarly there is a concrete recycle facility on Highway 3127 (Barrier Construction). Therefore, the Killona landfill is designed to handle mixed waste. It is believed that operating the landfill as a recycling facility would not be feasible due to the proximity of the two other named facilities.

523 D. A discussion of possible alternative sites that would offer more protection to the environment without unduly curtailing non-environmental benefits.

West St. Charles Parish was selected as the area to review for alternate sites. This area is a developing area in need of a C & D landfill for clearance/construction waste and is a supply of fill and clay material for leveling and filling new areas for construction.

Traditional alternative site analysis for the Killona C & D landfill site was limited to a suitable site on a highway in West St Charles with a preference to the improvement of any available burrow pits in the region over a green field site.

Of the two-screened highways one was found unsuitable due to proximity to population, historical sites, and the Mississippi River flood protection levees that are potentially sensitive to nearby landfill excavation.

On the selected highway, potential sites were limited to the south by wetlands and to the north by a chlorine pipeline.

The Killona site was determined to be the only site in West St. Charles Parish located on a suitable highway. Additionally, of the available sites in Killona, the only available burrow pit was selected over a green field site.

Therefore, there are no other alternate sites that meet the following site selection criteria:

- West Bank of St. Charles under development recently facilitated by opening of 1-310.
- Location from other C & D landfill on East Bank of the Parish in Norco.
- On a highway for transportation access. This highway should connect with 1-310. Alternate Highways are Hwy 18 (River Road) and Hwy 3127.
- Not a wetland.
- Not situated over a hazardous chemical pipeline.
- Prefer a burrow pit, as it is a brown field devoid of habitat over productive farmland. Additionally, the burrow pit is partially excavated for landfill use and is sited to provide adequate soil/clay for the improvement of the Parish.
- Located in a heavy industrial zoned area.
- Remote from adjacent communities. It is located in a sparsely populated area.
- Close to the St John Parish line (There are no restrictions on inter-parish disposal of C & D waste; therefore, situating the site close to the Parish line will facilitate growth in St. John and other Parishes).
- No known environmental issues (see previous ground borings that indicate no known hidden wastes underlies the site).

Highway Screening Analysis

There are 2 highways that connect with Interstate 310 on the West Bank of the Mississippi River in St. Charles Parish. Louisiana State Highways 3127 and Highway 18 (River Road) intersect Interstate 310.

Highway 18 was excluded from the analysis for the following reasons:

- 1) Highway 18 is also known as River Road and has been under

development since the French colonial period and as such is populated and contains historic sites.

- 2) Highway 18 runs adjacent to the Mississippi levee, which protects the area from flooding. Generally, any major excavation or pilings installed within 100' of the levee require The United States Army Corp of Engineers approval such that the levee is in no way compromised. An approval analysis was not performed for Army Corps approval of a landfill on Highway 18 due to the population and historical sites located along River Road.

Sitting Criteria on Highway 3127.

Highway 3127 connects to Interstate 310 then proceeds northwest to exit St. Charles Parish past Killona. Wetlands are located south of Highway 3127 and are not suitable for C & D landfill sites.

As previously stated, the area is zoned for heavy industrial activity. A chlorine pipeline extends along the north side of the Highway 18. The Department of Transportation regulates this as a hazardous material pipeline. Therefore, it is not appropriate to site a C & D landfill over or around this pipeline as the risk of release of chlorine gas is not warranted.

It is evident that the optimum site for a C & D landfill is on the north side of Highway 3127, north of the Oxy Chemical plant. This optimal area is the Taft/Waterford//Killona Area.

Killona Screening Analysis

There are green field sites available in Killona. However, a burrow pit is available, which is a preferable site to a green field. A burrow pit is an area where soils and clays have historically been removed for fill and construction purposes. As such, burrow pits tend to become sites for C & D landfills. These borrow pits have been previously excavated and can be more easily deepened for landfill cells. Furthermore, this site contains burrow material that is suitable for beneficial fill and construction use in the Parish. Operating this site as a landfill will require the excavation and generation of additional fill/construction material that will be used to improve property, foundations and flood protection systems in the Parish. Therefore, this site was chosen to co-generate beneficial use excavation material.

In summary, it is shown that the optimum location for the first C & D debris landfill in West St Charles Parish; when all the environmental, social, and economic considerations are considered is in Killona, Louisiana. Siting the C & D landfill in the Killona area could either be a green field or utilizing the

existing burrow pit. As the burrow pit is visually a brown field, it is preferable to use this site rather than a green field.

523 E. A discussion and description of the mitigating measures which would offer more protection to the environment than the facility, as proposed, without unduly curtailing non-environmental benefits.

There are no known mitigating measures to reduce pollution from the site. Regulatory requirements require that all known mitigation measures to be in place prior to the operation of a C & D landfill. These measures include a clay liner and dyke wall to prevent ground and surface water impacts from landfill operations.

Also required is waste coverage and capping to prevent air borne dust from leaving the waste cells.

Operational controls include rejection of non C & D debris, which are easily identified through a visual inspection of incoming waste loads. Waste not conforming to the definition of C & D debris will be rejected from the site without unloading.

Attachments and/or Figures referenced in the responses to the IT Questions were provided in the Original Permit Application submitted to the LDEQ in March 2002 and approved by LDEQ by Permit issuance on May 24, 2002.

PROOF OF REGISTRATION WITH THE SECRETARY OF STATE

Oct 09 06 12:32p KV Landfill

985-783-3044

Page 1 of 1 ^{P. 4}

Louisiana Secretary of State / Selected Business Detailed Data



Louisiana Secretary of State
COMMERCIAL DIVISION
Corporations Database



***Louisiana Secretary of State
Detailed Record***

Charter/Organization ID: 35087450K

Name: KILLONA VENTURES, L.L.C.

Type Entity: Limited Liability Company

Status: Active

Annual Report Status: In Good Standing Add Certificate of Good Standing to Shopping Cart

Last Report Filed on 04/25/2006

Mailing Address: P O BOX 620, HAHNVILLE, LA 70057

Domicile Address: 5900 LA. HWY. 3127, KILLONA, LA 70066

Organized: 05/11/2001

Registered Agent (Appointed 2/13/2003): LENARD S. PIGOTT, 5900 HWY. 3127, KILLONA, LA 70066

Member: WADE P. SCOTT, 611 DEER CROSS COURT EAST, MADISONVILLE, LA 70447

Member: SUNNY DAY FINANCIAL, L.L.C. OF NEVADA, 4601 W. SAHARA AVENUE, STE. L, LAS VEGAS, NV 89102

Amendments on File
DOMESTIC LLC AGENT/DOMICILE CHANGE (02/13/2003)

[New Search](#)[View Cart](#)

LDEQ CORRESPONDENCE

Oct 09 06 12:31p

KV Landfill

985-783-3044

p.2



DEPARTMENT OF ENVIRONMENTAL QUALITY

KATHLEEN BABINEAUX BLANCO

GOVERNOR

MIKE D. McDANIEL, Ph.D.

SECRETARY

OCT 06 2006

Agency Interest No. 92039

Permit Number P-0355

Activity No. PER20060002

Mr. Wade P. Scott
Killona Ventures, LLC
Post Office Box 620
Hahnville, LA 70057

**RE: Killona Ventures Landfill Application
Request for Additional Information**

Dear Mr. Scott:

Your solid waste permit modification application for Killona Ventures Landfill was received on October 05, 2006, and has been reviewed. The attached list of items must be received in order to proceed with the permit application process. Please submit the requested information in triplicate within thirty (30) days of receipt to:

Robert L. Nissen
Application Verification Group
Environmental Assistance Division
Office of Environmental Services
Post Office Box 4313
Baton Rouge, LA 70821-4313

If you have any questions, please call me at (225) 219-3286. Thank you for your attention to this matter.

Sincerely,

Robert Nissen
Environmental Project Specialist III
Application Verification Group

RN/rn

Attachment

c: IO-SW

ENVIRONMENTAL SERVICES

: PO BOX 4313, BATON ROUGE, LA 70821-4313

P:225-219-3181 F:225-219-3309

WWW.DEQ.LOUISIANA.GOV



ADMINISTRATIVE COMPLETENESS CHECKLIST
SOLID WASTE PERMIT MAJOR MODIFICATION

Please provide the information marked.

- | | |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| _____ | Application review fee
<i>LAC 33 Part VII 525</i> |
| _____ | Documentation that details the proposed modification and the effects of the modification on the environment/operation (including financial)
<i>LAC 33 Part VII.517.A.1.a,</i> |
| _____ | Four copies of the application submitted
<i>LAC 33 Part VII 517.1.a</i> |
| XX_____ | Completed 1701 addendum
<i>LAC 33 Part I 1701</i>
http://www.deq.state.la.us/permits/1701Addendum.pdf |
| XX_____ | Proof of registration with the Secretary of State (if needed for 1701 addendum)
<i>LAC 33 Part I 1701</i>
http://www.sec.state.la.us/crpinq.htm |
| _____ | Qualified third party opinion that activity is beneficial reuse (If Required)
<i>LAC 33 Part VII 1103.B</i> |
| XX_____ | Part III environmental impact statement "I.T. questions"
<i>LAC 33 Part VII 523.A-E</i> |



DEPARTMENT OF ENVIRONMENTAL QUALITY

KATHLEEN BABINEAUX BLANCO
GOVERNOR

MIKE D. McDANIEL, Ph.D.
SECRETARY

JAN 25 2007

CERTIFIED MAIL 7004 1160 0000 3793 6535
RETURN RECEIPT REQUIRED

Mr. Wade P. Scott
Killona Ventures L.L.C.
Post Office Box 620
Hahnville, Louisiana 70057

RE: Notice of Deficiency (NOD)
Technical Review # 1 Permit Modification
Change in Vertical Elevation
Killona Ventures L.L.C.
Type III Construction and Demolition Debris Landfill
AI # 92039/D-089-11377/P-0355/ PER20060002
St. Charles Parish

Dear Mr. Scott:

The Waste Permits Division has performed the technical review of your permit modification request submitted October 5, 2006, on your behalf by Tetra Tech EM, Inc. The submittal has been determined to be deficient and not in compliance with LAC 33:VII. The deficiencies are outlined below:

Permit Review Comments:

521.L. Please update this section.

Engineering Comments:

521.F Provide a justification for the size of the exposed work face.

521.F.3.b Please update this section as needed.

521.H.1.c Please update this section as needed.

521.J Update this section as needed.

Figure 1 Provide erosion control methods, such as benches and terraces, to control erosion on the slopes. Show these features on a figure and provide cross sections as needed.

ENVIRONMENTAL SERVICES
: PO BOX 4313, BATON ROUGE, LA 70821-4313
P:225-219-3181 F:225-219-3309
WWW.DEQ.LOUISIANA.GOV

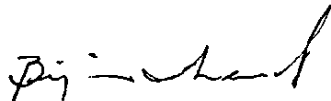
Killona Ventures L.L.C..
AI 92039
Page 2

Appendix A Please provide the background information used to analyze the stability of the proposed height. Provide justification demonstrating the locations chosen represent the most critical locations.

Your response to these deficiencies shall be sent to this office within thirty (30) days of receipt of this letter. Additionally, five (5) copies of your response, including appendices, shall be provided. Failure to respond to these deficiencies as described as well as failure or refusal to comply with this notice may result in a permit denial.

Please reference Agency Interest Number 92039, Site Identification Number D-089-11377, and Permit Activity Number PER20060002 on all future correspondence pertaining to this permit activity. If you have any questions concerning this matter, please contact Mr. Jason Meyers (Engineering Comments) at (225) 219-3459 or Mr. Curt A. Auzenne (Permit Review Comments) at (225) 219-3060.

Sincerely,



Bijan Sharafkhani, P.E.
Administrator
Waste Permits Division

c: Robert L. Harris, PG, CHMM
Tetra Tech EM, Inc.



DEPARTMENT OF ENVIRONMENTAL QUALITY

KATHLEEN BABINEAUX BLANCO
GOVERNOR

MIKE D. McDANIEL, Ph.D.
SECRETARY

FEB 06 2007

CERTIFIED MAIL 7004 1160 0000 3793 6566
RETURN RECEIPT REQUIRED

Mr. Wade P. Scott
Killona Ventures L.L.C.
Post Office Box 620
Hahnville, Louisiana 70057

RE: Request for Final Copies
Major Modification - Change in Vertical Elevation
Killona Ventures L.L.C.
Type III Construction and Demolition Debris Landfill
AI # 92039/D-089-11377/P-0355/ PER20060002
St. Charles Parish

Dear Mr. Scott:

The Waste Permits Division has performed the technical review of your submittal dated January 25, 2007.

Please submit six (6) bound copies of the complete document using the original submitted application and incorporating all previously accepted revisions into appropriate sections. Upon receipt of these copies, a final review will be conducted in order to ensure that the document is acceptable for public review. Your updated application shall be submitted to this office within thirty (30) days of receipt of this letter. If upon review, the document is determined to be technically complete, you will be notified of this decision and the public review period will be scheduled.

Any approved Part I, II, or III, revisions shall be incorporated into the document and typographical errors that have been included in the original document shall be corrected in the final permit document submitted to this office.

Please incorporate the following comment into the final copies:

521.J.3.b Please provide a statement in this response that the largest area requiring final cover at one time will be 4.5 acres as provided for by the closure cost estimate.

ENVIRONMENTAL SERVICES

: PO BOX 4313, BATON ROUGE, LA 70821-4313

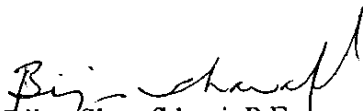
P:225-219-3181 F:225-219-3309

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Mr. Wade P. Scott
AI #92039
Page 2

Please reference Agency Interest Number 92039, Permit Number P-0355, Permit Activity Number PER20060002 and Site Identification Number D-089-11377 on all future correspondence pertaining to this facility. If you have any questions concerning this matter, please contact Mr. Curt A. Auzenne of the Waste Services Section at (225) 219-3060.

Sincerely,



Bijan Sharafkhani, P.E.
Administrator
Waste Permits Division

caa

c: Robert L. Harris
Tetra Tech EM Inc.

APPENDIX A
GEOTECHICNAL REPORT

STABILITY ANALYSIS
FOR
KILLONA CONSTRUCTION DEBRIS LANDFILL
KILLONA, LOUISIANA

PREPARED FOR:
EMI
ATTN: MR. BOB HARRIS
11955 LAKELAND PARK BLVD. #100
BATON ROUGE, LOUISIANA 70809

PREPARED BY:
TETRA TECH, INC.
P.O. BOX 19220
SHREVEPORT, LOUISIANA 71149

TETRA TECH FILE #061284A/PROJECT #6220448

MODIFIED JANUARY 25, 2007

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LIST OF APPENDICES

APPENDIX A. Slope Stability Analysis.....	A
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TETRA TECH, INC.

January 25, 2007

EMI
11955 Lakeland Park Blvd. #100
Baton Rouge, Louisiana 70809

Reference: Stability Analysis - Modified 1-25-07
Killona Construction Debris Landfill
Killona, Louisiana
Tetra Tech File #061284A Project # 6220448

Gentlemen:

Attached is the Stability Analysis Report for the referenced project.

It has been a pleasure to perform this work for you. If we can be of any further assistance, please do not hesitate to call on us.

Very truly yours,
TETRA TECH, INC.

Lloyd G. Hoover, P.E.
Senior VP Director Louisiana Operation and Marketing

LGH:mfh

cc: (3) client

7222 Greenwood Road, Shreveport, LA 71119
PO Box 19720, Shreveport, LA 71149
Tel: 318.636.3673 Fax: 318.636.3723
www.tetratech.com

EMI
Killona, Louisiana

Killona Construction Debris Landfill
Tetra Tech File #061284A/Project #6220448

**STABILITY ANALYSIS
FOR
KILLONA CONSTRUCTION DEBRIS LANDFILL
KILLONA, LOUISIANA**

1. GENERAL

This study was authorized by Mr. Bob Harris in September 2006. The purposes of the study were to utilize existing subsurface exploration information at this site to determine the stability of the construction and debris to heights of one hundred twenty-five feet and less.

The site of the proposed construction is in Killona, Louisiana.

2. PROJECT DESCRIPTION

It is our understanding the proposed landfill is permitted for heights up to seventeen (17) feet. The present height operating in emergency conditions is twenty-five (25) feet. The client desires to check the available additional heights for stability up to a total height of one hundred twenty-five (125) feet.

3. FIELD OPERATIONS

The subsurface exploration at the site was performed by others and is contained in the landfill permit.

4. LABORATORY TESTING

Laboratory tests were performed by others. The tests results were utilized by the geotechnical engineer to perform the stability analysis and to analyze other geotechnical conditions at the site.

5. SOIL CONDITIONS

Generally, the upper soils are fine sand to about four (4) feet deep. Below this depth a silty clay with traces of wood and silt extends to about ten (10) feet. Below this depth the soil is very stiff to soft clay from forty (40) to sixty (60) feet. This stratum also has organic matter and roots. Below these depths a fine sand, soft clay and clayey silt is found and extends to at least the depth of the borings at sixty (60) feet.

EMI
Killona, Louisiana

Killona Construction Debris Landfill
Tetra Tech File #061284A/Project #6220448

6. GROUNDWATER

Groundwater was encountered within three (3) feet of the surface. The assumption was made for stability that the water would be encountered twenty-five (25) feet below the top of the landfill.

7. STABILITY ANALYSIS

The following table indicates the safety factor of the landfill based on report parameters used in the slope stability analysis. The shear strength characteristics of construction debris landfill material are hard to determine due to the scatter and scarcity of the data. The values utilized in the analysis may differ from the actual and thus the resulting safety factors may differ. However, generally accepted values were utilized.

50	75	1.432	1.283
75	100	1.348	1.232
100	125	1.296	1.205

The slope of the additional fill material varies with the height of construction chosen. The test results indicate the shear failure surface will be developed within the fill and extend to the underlying soils. The analysis indicates it is safe to place an additional one hundred (100) feet of fill. This analysis is using the assumption the water table will not be greater than natural ground elevation. Please refer to the GSTABL7 outputs on the appendix for detailed information.

Due to the loading of the soil from previous operations some pre-consolidation and strengthening of the soil has occurred. This consolidation will continue over time, thus soil strengthening will occur.

EMI
Killona, Louisiana

Killona Construction Debris Landfill
Tetra Tech File #061284A/Project #6220448

If the water table is expected to be higher than natural ground and there is a concern about water table and stability, a pressure point piezometer can be installed and measure the pore pressure as the operation is on going. If pore pressure starts approaching 100% then operations for additional height can be temporarily suspended until the pore pressures begin to dissipate. This would only be necessary for high water table considerations.

8. SITE PREPARATION

Procedures for this landfill permit should be followed.

9. SETTLEMENT

Total settlement from consolidation and differential settlement from consolidation should not be a concern for this type of operation. Differential settlement should not be confused with shear failure.

10. CONSTRUCTION CONCERNS

Due to the nature of this site competent construction supervision and monitoring of piezometer may be required and all contracts should be written with this fact being given consideration. A professional construction materials laboratory should be utilized; that is ASTM E-329 should be met.

11. LIMITATIONS

It must be recognized conclusions reached in this report are based on conditions at the assumed from existing boring logs of site. In any subsoil investigation, it is necessary to assume subsoil conditions between borings do not change significantly. Consequently, careful observations must be made during construction to detect significant settlement in any particular area if it should occur. Tetra Tech, Inc. should be contacted if unusual circumstances occur.

Analysis by: Young Chang, P.E.
Report by: Lloyd G. Hoover, P.E.



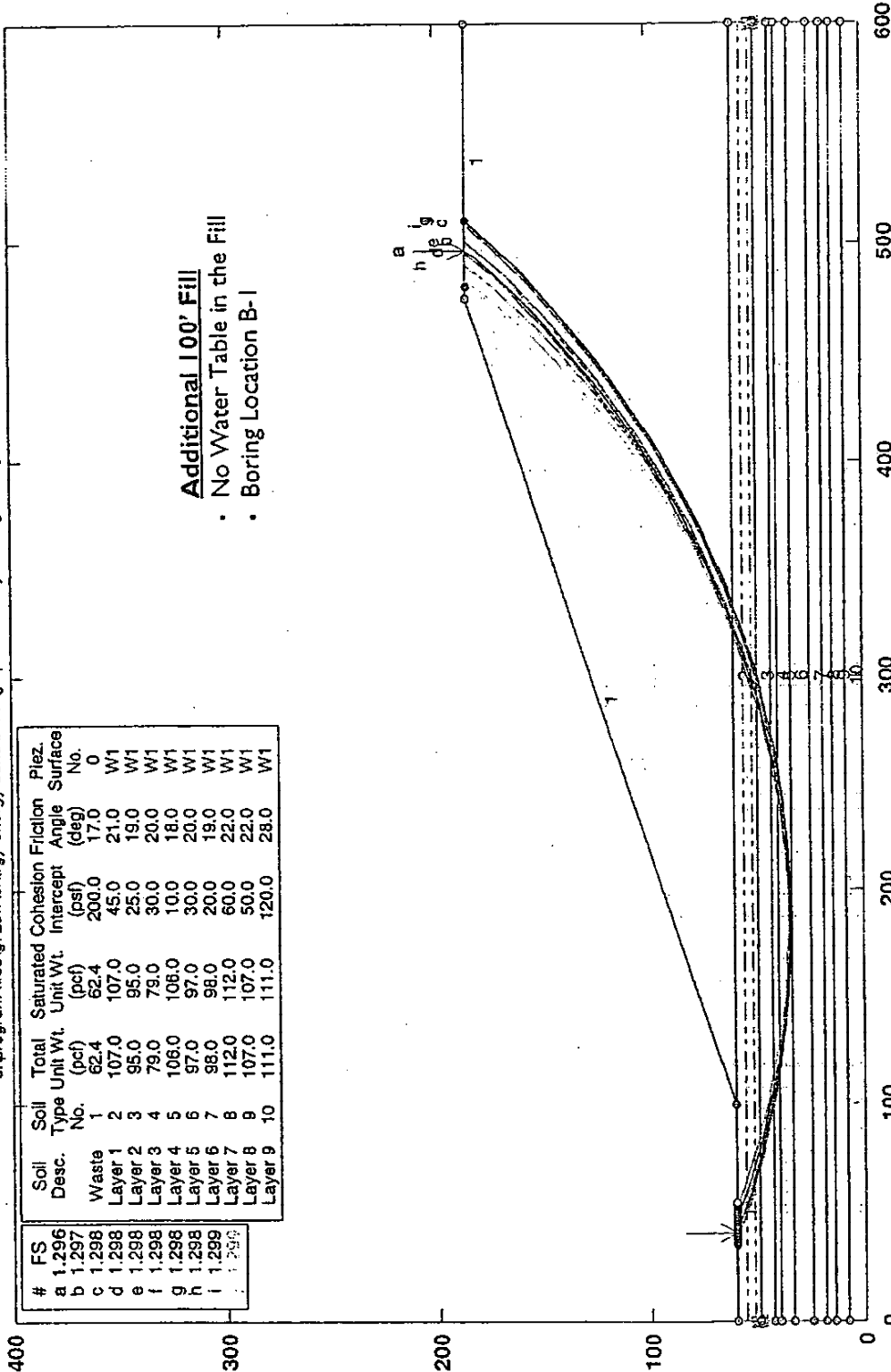
TETRA TECH, INC.

APPENDIX A

SLOPE STABILITY ANALYSIS

KILLONA CONSTRUCTION DEBRIS LANDFILL

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Additional 100' Fill

- No Water Table in the Fill
- Boring Location B-1

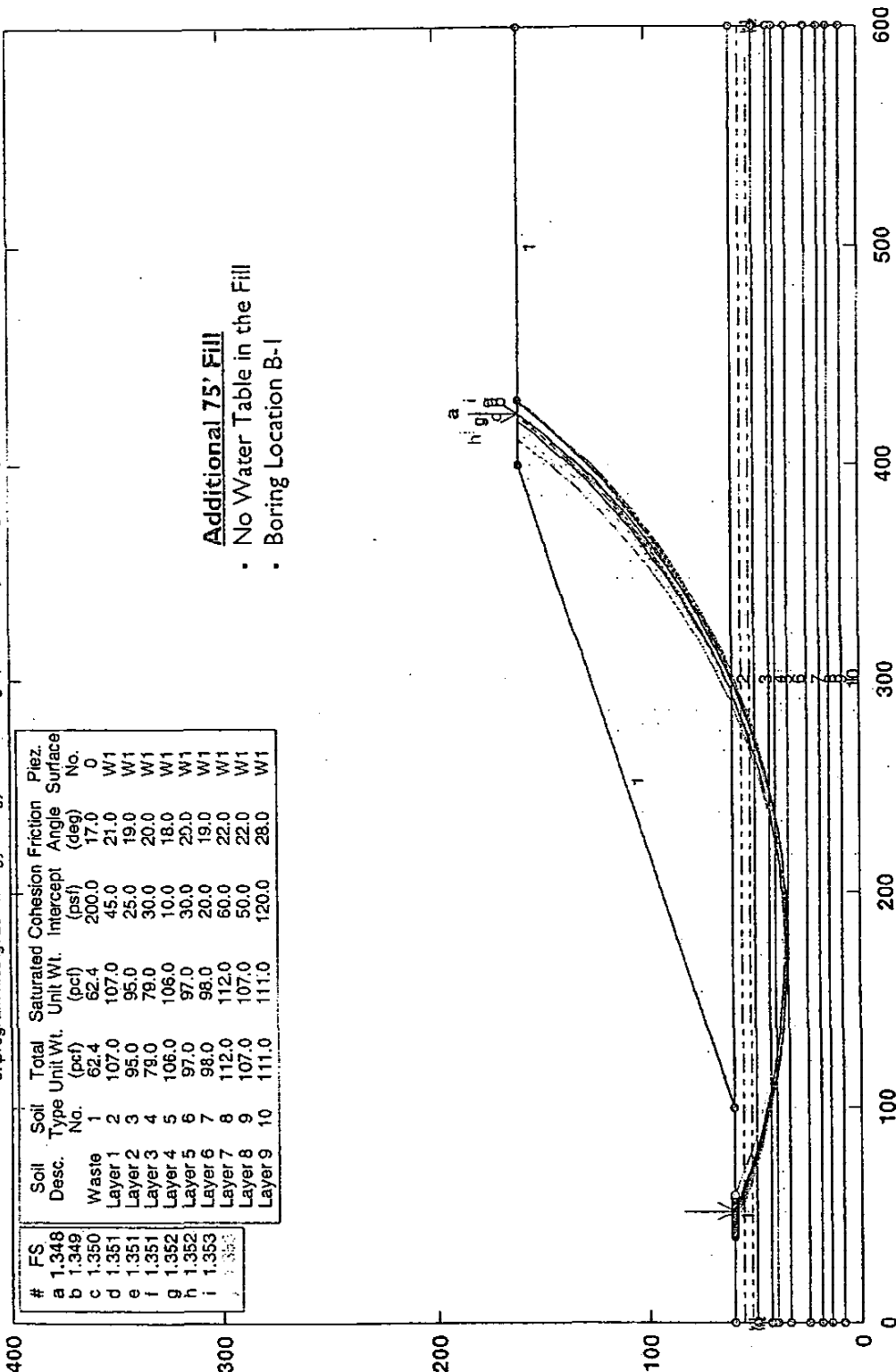
GSTABL7 v.2 FSmin=1.296

Safety Factors Are Calculated By The Modified Bishop Method



KILLONA CONSTRUCTION DEBRIS LANDFILL

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Additional 75' Fill

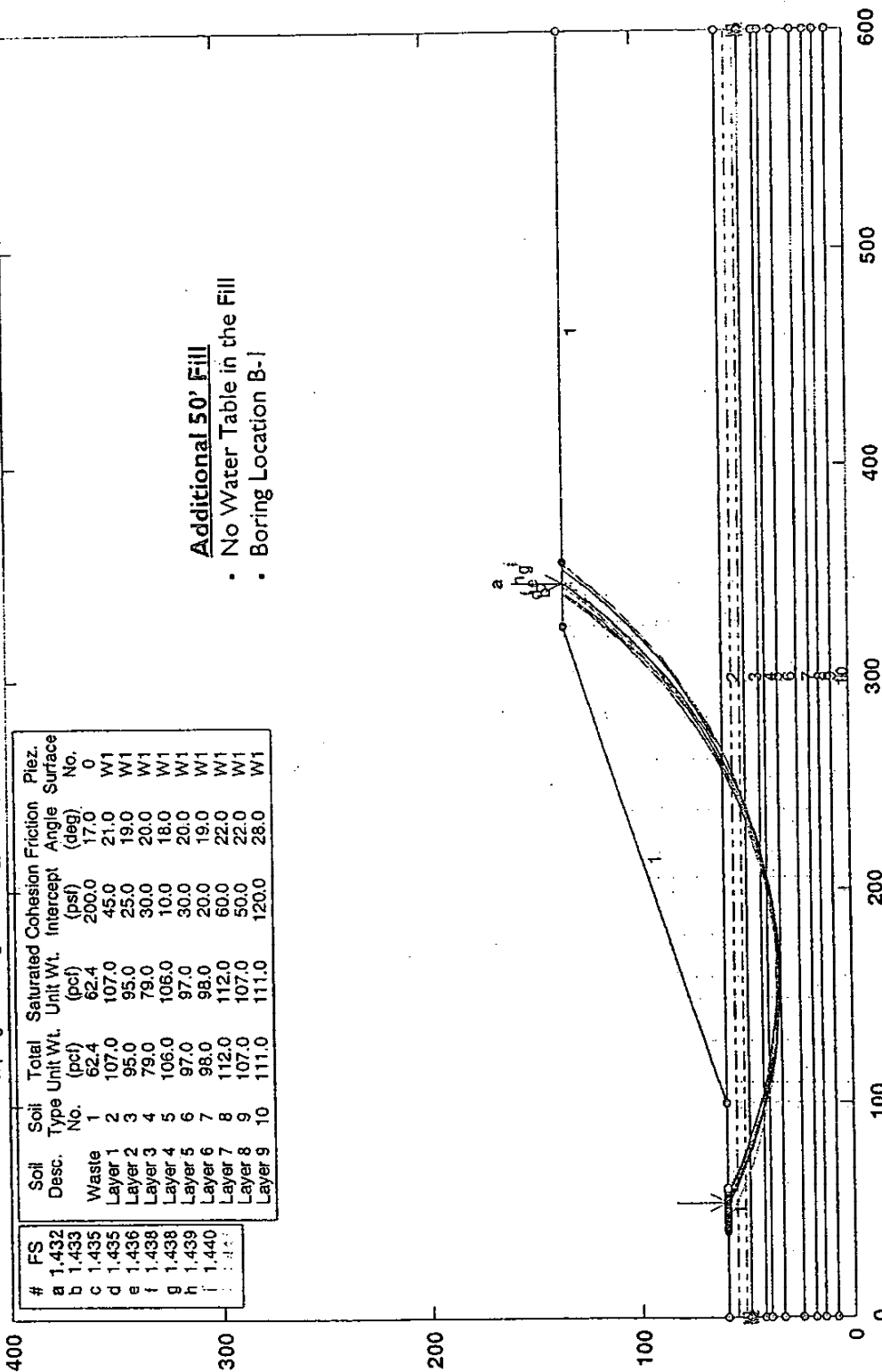
- No Water Table in the Fill
- Boring Location B-1

GSTABL7 v.2 FSmin=1.348

Safety Factors Are Calculated By The Modified Bishop Method



KILLONA CONSTRUCTION, DEBRIS LANDFILL
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#	FS	Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion (pcf)	Friction Angle (deg)	Piez. Surface No.
a	1.432	Waste	1	62.4	62.4	200.0	17.0	0
b	1.433	Layer 1	2	107.0	107.0	45.0	21.0	W1
c	1.435	Layer 2	3	95.0	95.0	25.0	19.0	W1
d	1.436	Layer 3	4	79.0	79.0	30.0	20.0	W1
e	1.438	Layer 4	5	106.0	106.0	10.0	18.0	W1
f	1.439	Layer 5	6	97.0	97.0	30.0	20.0	W1
g	1.440	Layer 6	7	98.0	98.0	20.0	19.0	W1
h	1.440	Layer 7	8	112.0	112.0	60.0	22.0	W1
i	1.440	Layer 8	9	107.0	107.0	50.0	22.0	W1
j	1.440	Layer 9	10	111.0	111.0	120.0	28.0	W1

Additional 50' Fill

- No Water Table in the Fill
- Boring Location B-1

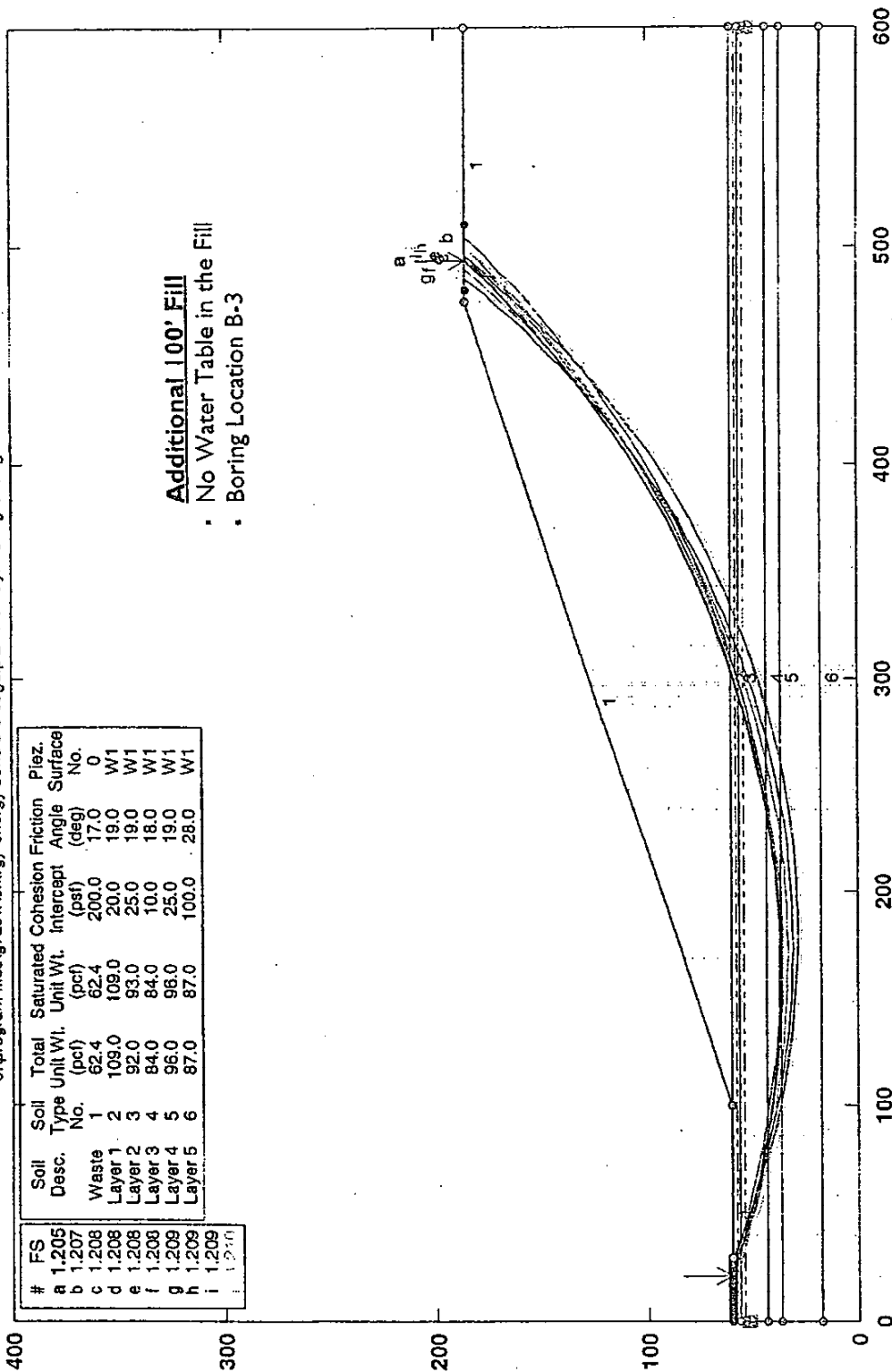
GSTABL7 v.2 FSmin=1.432

Safety Factors Are Calculated By The Modified Bishop Method



KILLONA CONSTRUCTION DEBRIS LANDFILL

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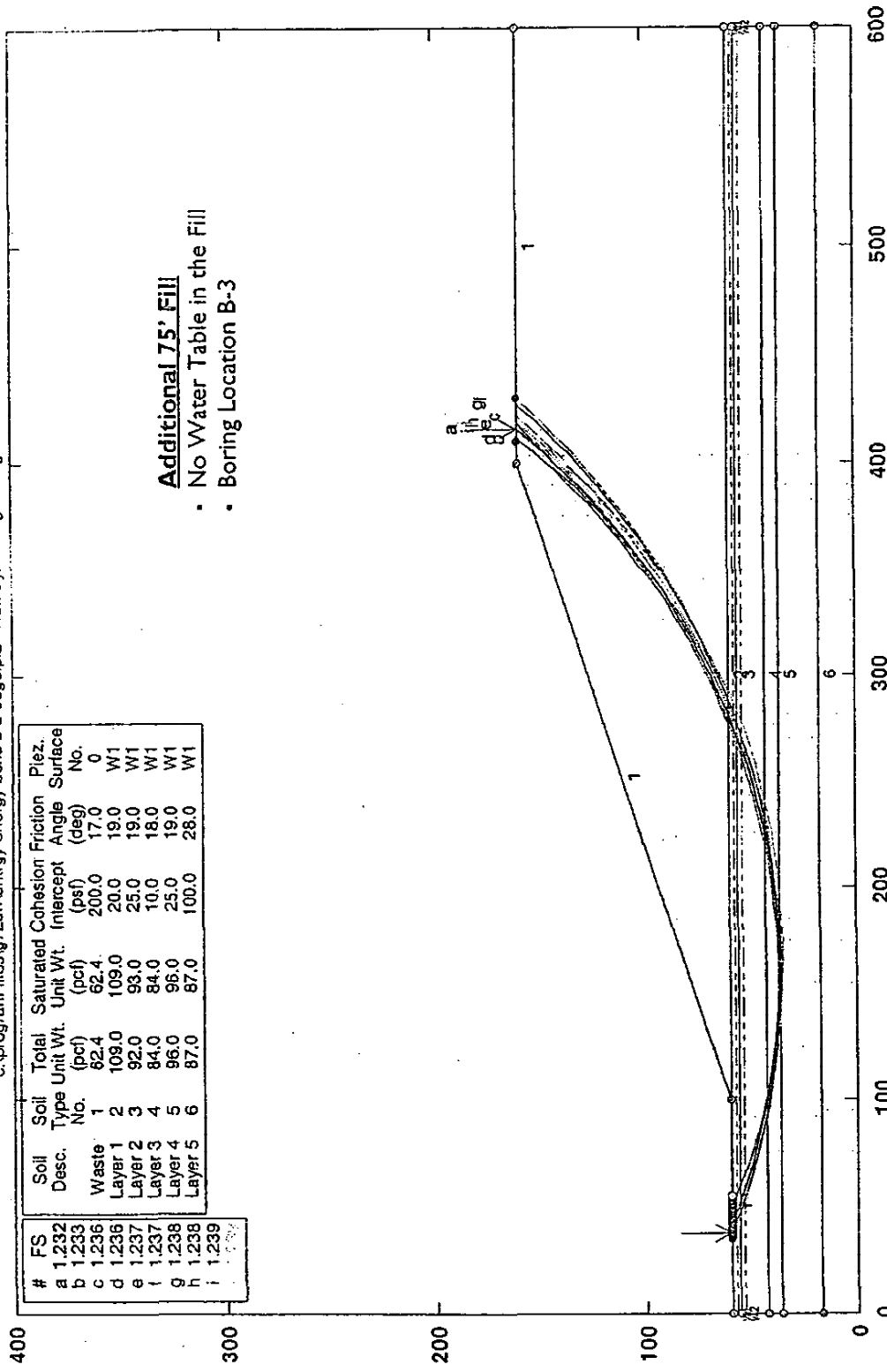
- Additional 100' Fill**
- No Water Table in the Fill
 - Boring Location B-3

GSTABL7 v.2 FSmin=1.205
Safety Factors Are Calculated By The Modified Bishop Method



KILLONA CONSTRUCTION DEBRIS LANDFILL

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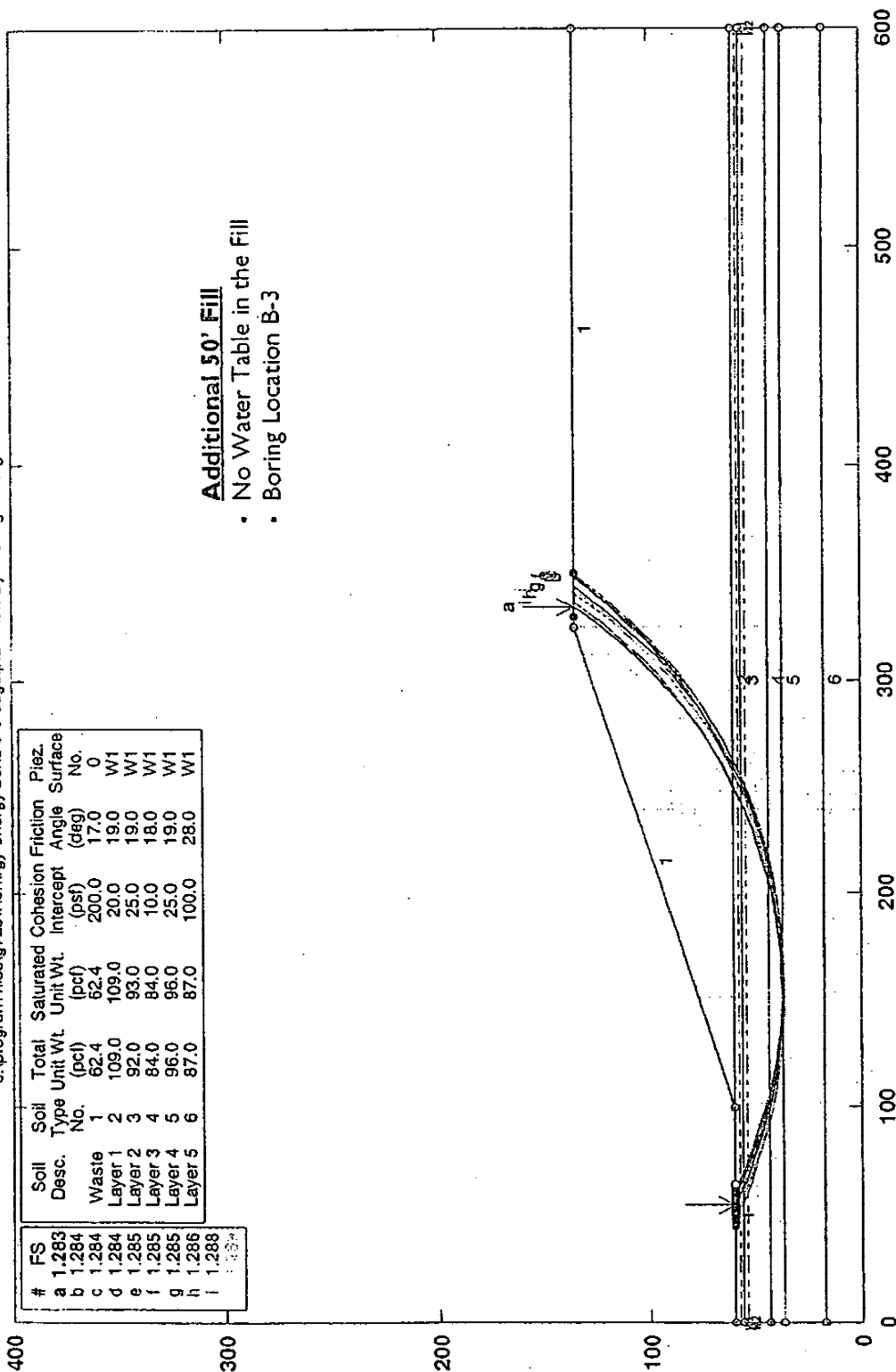
- Additional 75' Fill**
- No Water Table in the Fill
 - Boring Location B-3

GSTABL7 v.2 FSmin=1.232
Safety Factors Are Calculated By The Modified Bishop Method



KILLONA CONSTRUCTION DEBRIS LANDFILL

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Additional 50' Fill

- No Water Table in the Fill
- Boring Location B-3

GSTABL7 v.2 FSmin=1.283

Safety Factors Are Calculated By The Modified Bishop Method



SOIL BORING LOGS

GORE ENGINEERING, INC.

Soil and Foundation Investigations
Metairie, Louisiana

Job No. 7729

Boring No. B-1 Lat: N30d00m32.2s Long: W90d31m03.3s

LOG OF BORING AND TEST RESULTS

Date Boring Drilled: 25 June 2001

Project: CONSTRUCTION DEBRIS LANDFILL - LA. HIGHWAY 3127 - ST. CHARLES PARISH, LOUISIANA

FOR: KILLONA VENTURES

CITYWIDE TESTING & INSPECTIONS, INC. - ENVIRONMENTAL CONSULTANTS - NEW ORLEANS, LOUISIANA

Recorded By: Stephen E. Wale

Sample No.	SAMPLE Depth in Feet		STRATUM Depth in Feet	VISUAL CLASSIFICATION	Blows per Foot	Symbol Log	Scale (feet)	UNCONFINED COMPRESSION (q _u) (lbs./sq. ft.)	WATER CONTENT (percent)	UNIT WEIGHT (lbs./cu. ft.)		ATTERBERG LIMITS		
	From	To								DRY	WET	L.L.	P.L.	P.I.
			0				0							
1	5	1.0	1.0	LOOSE BROWN CLAYEY FINE SAND				970	26.4	87.9	111.1			
2	1.5	2.0		LOOSE TO MEDIUM DENSE BROWN FINE SAND				27.3						
3	3.5	4.0	3.5					890	56.8	63.5	99.6			
4	5.5	6.0		SOFT GRAY CLAY W/ SILT				975	47.1	72.7	106.9			
5	7.5	8.0		(W/ TRACES WOOD @ 7.5'-8.0')				810	49.5	70.8	105.8	79	25	54
6	9.5	10.0	10.5				10							
7	11.5	12.0		VERY SOFT TO SOFT GRAY CLAY W/ ROOTS & POCKETS ORGANIC				470	82.4	50.8	92.6			
8	14.0	14.5	15.0				15	570	79.3	53.0	95.0			
				WOOD W/ SOME CLAY										
			17.5											
9	19.5	20.0	20.5	SOFT BROWN ORGANIC CLAY W/ GRAY CLAY LAYERS & ROOTS			20	640	154.9	30.8	78.5	179	60	119
10	24.5	25.0	26.0	VERY SOFT TO SOFT GRAY SILTY CLAY			25	195	42.4	74.2	105.6			
11	29.5	30.0					30	580	73.6	55.6	96.5	101	24	77
12	34.0	34.5		VERY SOFT TO SOFT GRAY CLAY W/ SANDY SILT LENSES & POCKETS			35							
13	39.5	40.0	41.0				40	410	65.4	59.1	97.7			
14	44.5	45.0	46.0	MEDIUM DENSE GRAY FINE SAND W/ SOME CLAY			45	1120	34.4	83.6	112.4			
15	49.0	49.5	49.5	SOFT GRAY CLAY W/ SILT LENSES			50	985	50.3	70.0	105.2			
16	51.0	51.5	51.5	MEDIUM COMPACT REDDISH TAN CLAYEY SILT				1140	28.1	86.4	110.7			
17	52.0	53.5	53.5	MEDIUM DENSE REDDISH TAN SANDY SILT W/ CLAY LAYERS	14			25.9						
	57.0	57.5	58.0	STIFF REDDISH TAN & LIGHT GRAY CLAY W/ SILT LENSES			55	2235	33.8	82.6	110.5			
19	59.5	60.0	60.0	STIFF GRAY CLAY W/ SOME SILT			60	3765	49.1	68.9	102.7			

CLAY
 SILT
 SAND
 ORGANIC

* 140 lb. hammer dropped 30 inches
 on 2 inch splitspoon sampler
 after free fall of 5 inches

REMARKS: Water Table Depth = 4.5 ft (See Text)
 Free Water Depth = 8.0 ft (See Text)

GORE ENGINEERING, INC.

Soil and Foundation Investigations
Metairie, Louisiana

Job No. 7729

Boring No. B-2 Lat: N30d00m36.3s Long: W90d30m53.9s

LOG OF BORING AND TEST RESULTS

Date Boring Drilled: 25 June 2001

Project: CONSTRUCTION DEBRIS LANDFILL - LA. HIGHWAY 3127 - ST. CHARLES PARISH, LOUISIANA
FOR: KILLONA VENTURES

CITYWIDE TESTING & INSPECTIONS, INC. - ENVIRONMENTAL CONSULTANTS - NEW ORLEANS, LOUISIANA

Recorded By: Stephen E. Wale

Sample No.	SAMPLE Depth in Feet		STRATUM Depth in Feet	VISUAL CLASSIFICATION	Blows per Foot	Symbol Log	Scale (feet)	UNCONFINED COMPRESSION (q _u) (lbs./sq. ft.)	WATER CONTENT (percent)	UNIT WEIGHT (pcf)		ATTERBERG LIMITS		
	From	To								DRY	WET	L.L.	P.L.	P.I.
			0				0							
1	1.5	2.0	2.0	MEDIUM DENSE BROWN CLAYEY FINE SAND				1015	23.0	87.3	107.4			
2	3.5	4.0	4.5	MEDIUM DENSE BROWN FINE SAND				1335	28.5	84.9	109.1			
3	5.5	6.0	7.0	MEDIUM STIFF GRAY SILTY CLAY				1060	40.7	75.3	106.7			
4	7.5	8.0		MEDIUM STIFF TO STIFF GRAY CLAY				1595	54.7	63.9	102.0			
5	9.5	10.0	10.0	W/ SILT & SPECKS WOOD			10	1310	73.5	55.2	95.8	125	40	85
6	11.5	12.0		SOFT GRAY CLAY				935	75.5	54.5	95.9			
7	14.5	15.0	15.5	W/ SILT			15	965	68.7	58.2	98.1			
8	17.5	18.0	18.5	VERY SOFT GRAY ORGANIC CLAY				380	131.0	35.7	82.5			
9	19.5	20.0		W/ SILT & SPECKS WOOD			20	225	100.7	43.1	86.6	164	31	133
			23.5	VERY SOFT TO SOFT BROWN & GRAY ORGANIC CLAY			25							
10	24.5	25.0		W/ ROOTS & CLAY LAYERS			30	390	75.5	54.2	94.8	110	25	85
11	29.5	30.0		VERY SOFT TO SOFT GRAY CLAY			35							
12	34.5	35.0		W/ SILT LENSES & LAYERS			40	665	70.2	57.5	97.9			
13	39.5	40.0	38.5	STIFF GREENISH GRAY SILTY CLAY			45	3660	24.6	99.0	123.3			
14	44.5	45.0	42.0	VERY STIFF LIGHT GRAY & REDDISH TAN SILTY CLAY			50	4595	24.5	97.6	121.5			
15	49.5	50.0	48.5	STIFF REDDISH TAN & LIGHT GRAY CLAY			55	2515	41.7	77.5	110.0			
16	54.5	55.0		W/ SILT			60	2275	44.6	77.5	112.1			
17	59.5	60.0	60.0											

CLAY SILT SAND ORGANIC

* 140 lb. hammer dropped 30 inches on 2 inch split spoon sampler

REMARKS: Water Table Depth = 2.5 ft (See Text)
Free Water Depth = 8.0 ft (See Text)

GORE ENGINEERING, INC.

Soil and Foundation Investigations
Metairie, Louisiana

Job No 7729

Boring No. B-3 Lat: N30d00m26.4s Long: W90d31m08.2s

LOG OF BORING AND TEST RESULTS

Date Boring Drilled: 26 June 2001

Project: CONSTRUCTION DEBRIS LANDFILL - LA. HIGHWAY 3127 - ST. CHARLES PARISH, LOUISIANA
FOR: KILLONA VENTURES
CITYWIDE TESTING & INSPECTIONS, INC. - ENVIRONMENTAL CONSULTANTS - NEW ORLEANS, LOUISIANA

Recorded By: Don Tusa

Sample No.	SAMPLE Depth in Feet		STRATUM Depth in Feet	VISUAL CLASSIFICATION	Blows per Foot	Symbol Log	Scale (feet)	UNCONFINED COMPRESSION (Q _u) (lbs./sq.ft.)	WATER CONTENT (percent)	UNIT WEIGHT (lbs./cu.ft.)		ATTERBERG LIMITS		
	From	To								DRY	WET	L.L.	P.L.	P.I.
			0				0							
1	0	0.5	1.0	LOOSE BROWN & GRAY CLAYEY SILT										
2	1.5	2.0	2.0	LOOSE TAN & GRAY SANDY SILT										
3	3.5	4.0	4.0	SOFT TAN & GRAY SILTY CLAY				765	36.1	80.2	109.2			
4	5.5	6.0												
5	7.5	8.0		VERY SOFT TO SOFT GRAY CLAY				575	61.6	60.8	98.3	117	35	82
6	9.5	10.0		W/ SOME ORGANIC & TRACE WOOD				405	94.3	44.9	87.3			
7	11.5	12.0		(W/ MUCH WOOD @ 15')										
8	14.5	15.0						565	82.0	50.3	91.6			
			16.5											
9	19.5	20.0		VERY SOFT GRAY CLAY				170	104.6	40.9	83.7	117	32	85
				W/ ORGANIC & TRACE WOOD										
			23.5											
10	24.5	25.0												
11	29.5	30.0						435	72.1	54.8	94.3			
				VERY SOFT TO SOFT GRAY CLAY										
				W/ SILT & TRACE ORGANIC										
12	34.5	35.0												
13	39.5	40.0						540	43.7	71.1	102.1			
			43.0											
14	44.5	45.0		STIFF				3670	41.7	76.8	108.8	87	35	52
				GREENISH GRAY & REDDISH TAN CLAY										
			46.5											
15	48.5	49.0		STIFF REDDISH TAN & LIGHT GRAY CLAY				2665	40.8	77.3	108.8			
			49.0											
16	49.0	50.5		MEDIUM COMPACT	13				27.9					(83)
			51.0	REDDISH TAN SANDY SILT										
17	52.0	52.5												
18	54.5	55.0		STIFF REDDISH TAN & LIGHT GRAY CLAY				3425	46.1	73.5	107.4			
				W/ SILT										
19	59.5	60.0	60.0											

NOTE: VALUES IN PARENTHESES () INDICATE PERCENT PASSING NO. 200 SIEVE.



*140 lb. hammer dropped 30 inches on 2 inch split spoon sampler

REMARKS: Water Table Depth = 2.0 ft (See Text)
Free Water Depth = 6.0 ft (See Text)

GORE ENGINEERING, INC.

Soil and Foundation Investigations
Metairie, Louisiana

Job No. 7729

LOG OF BORING AND TEST RESULTS

Date Boring Drilled: 26 June 2001

Boring No. 3-4 Lat: N30d00m30.2s Long: W90d30m59.7s

Project: CONSTRUCTION DEBRIS LANDFILL - LA. HIGHWAY 3127 - ST. CHARLES PARISH, LOUISIANA
FOR: KILLONA VENTURES

CITYWIDE TESTING & INSPECTIONS, INC. - ENVIRONMENTAL CONSULTANTS - NEW ORLEANS, LOUISIANA

Recorded By: Don Tusa

Sample No.	SAMPLE Depth in Feet		STRATUM Depth in Feet	VISUAL CLASSIFICATION	Blows per Foot	Symbol Log	Scale (feet)	UNCONFINED COMPRESSION (q _u) (lbs./sq.ft.)	WATER CONTENT (percent)	UNIT WEIGHT (lbs./cu.ft.)		ATTERBERG LIMITS		
	From	To								DRY	WET	L.L.	P.L.	P.I.
1	0.0	0.5	1.0	SOFT BROWN & GRAY SILTY CLAY										
2	1.5	2.0	3.0	MEDIUM COMPACT TAN & GRAY SANDY SILT				1015	24.6	88.0	109.6			
3	3.5	4.0	6.0	MEDIUM STIFF TAN & GRAY CLAY W/ SILT				1815	49.3	68.6	102.4	91	30	61
4	5.5	6.0												
5	7.5	8.0						705	102.3	43.0	87.0			
6	9.5	10.0												
7	11.5	12.0						315	84.6	49.0	90.4	125	34	91
8	14.5	15.0		VERY SOFT TO SOFT GRAY CLAY W/ ORGANIC & WOOD					127.5					
9	19.5	20.0		(W/ MUCH WOOD @ 14.5'-15.0')					92.9					
10	24.5	25.0												
11	29.5	30.0	28.5						60.2					
12	34.5	35.0		VERY SOFT TO SOFT GRAY CLAY W/ SILT LENSES & LAYERS				650	54.3	64.2	99.1	59	28	31
13	39.5	40.0												
14	43.5	44.0	44.0					890	53.7	66.2	101.7			
15	44.5	45.0	46.0	LOOSE GRAY FINE SAND					21.2					(8)
16	46.5	47.0		STIFF GREENISH GRAY & REDDISH TAN CLAY										
17	49.5	50.0	50.0	WOOD W/ SOME CLAY				3765	38.6	80.9	112.1	96	29	67
18	54.5	55.0	52.0	LOOSE REDDISH TAN SILTY FINE SAND										
19	56.0	56.5	55.0					910	28.8	89.6	115.4			
20	59.5	60.0	60.0	STIFF REDDISH TAN & GRAY CLAY										
								2545	41.6	75.1	106.4			

NOTE: VALUES IN PARENTHESES () INDICATE PERCENT PASSING NO. 200 SIEVE.



* 140 lb. hammer dropped 30 inches on 2 inch split spoon sampler after first being tested 6 inches

REMARKS:

Free Water Depth = 8.0 ft (See Text)

GORE ENGINEERING, INC.

Job No. 7729

Soil and Foundation Investigations
Metairie, Louisiana

LOG OF BORING AND TEST RESULTS

Date Boring Drilled: 27 June 2001

Boring No. B-5 Lat: N30d00m30.4s Long: W90d30m54.3s

Project: CONSTRUCTION DEBRIS LANDFILL - LA. HIGHWAY 3127 - ST. CHARLES PARISH, LOUISIANA
FOR: KILLONA VENTURES
CITYWIDE TESTING & INSPECTIONS, INC. - ENVIRONMENTAL CONSULTANTS - NEW ORLEANS, LOUISIANA

Recorded By: Don Tusa

Sample No.	SAMPLE Depth in Feet		STRATUM Depth in Feet	VISUAL CLASSIFICATION	Blows per Foot	Symbol Log	Scale (feet)	UNCONFINED COMPRESSION (q _u) (lbs./sq.ft.)	WATER CONTENT (percent)	UNIT WEIGHT (lbs./cu.ft.)		ATTERBERG LIMITS		
	From	To								DRY	WET	L.L.	P.L.	P.I.
			0				0							
1	0	0.5	1.0	SOFT BROWN & GRAY SILTY CLAY										
2	1.5	2.0		STIFF BROWN & GRAY CLAY W/ SILT				2820	25.5	87.6	109.9			
3	3.5	4.0	3.0	STIFF TAN & GRAY CLAY W/ SILTY CLAY LAYERS (FISSURED)				985	25.4	91.3	114.5	66	19	47
4	5.5	6.0	4.0	MEDIUM STIFF GRAY & TAN CLAY W/ TRACE WOOD			5	1100	58.7	62.1	98.5			
5	7.5	8.0	6.5					495	118.6	38.4	83.9			
6	9.5	10.0					10							
7	11.5	12.0		VERY SOFT TO SOFT GRAY CLAY W/ ORGANIC & WOOD				895	71.8	55.5	95.4	120	27	93
8	14.5	15.0					15							
9	18.5	19.0						230	111.2	39.4	83.3			
10	19.5	20.0	19.5	LOOSE GRAY SANDY SILT W/ CLAY LAYERS			20		34.3			(78)		
11	24.5	25.0	25.0				25							
12	26.0	26.5						500	49.5	67.4	100.7	49	16	33
13	29.5	30.0		VERY SOFT TO SOFT GRAY CLAY W/ SILT LENSES			30	810	41.7	75.7	107.3			
14	34.5	35.0	35.0				35	400	12.8	95.2	107.4			
15	36.0	36.5		STIFF GREENISH GRAY & REDDISH TAN SILTY CLAY				2235	77.9	66.8	118.8			
16	39.5	40.0	38.5				40	6965	41.3	85.2	120.4	47	13	34
17	44.5	45.0	45.0	VERY STIFF GREENISH GRAY & REDDISH TAN CLAY W/ SILT			45							
18	46.0	46.5		MEDIUM STIFF REDDISH TAN & LIGHT GRAY SILTY CLAY				1105	41.5	78.3	110.8			
19	49.5	50.0	48.0				50							
20	54.5	55.0		STIFF REDDISH TAN & LIGHT GRAY CLAY			55							
21	59.5	60.0	60.0				60	3680	54.6	71.4	110.4			

NOTE: VALUES IN PARENTHESES () INDICATE PERCENT PASSING NO. 200 SIEVE.

NOTE: VALUES IN PARENTHESES () INDICATE PERCENT PASSING NO. 200 SIEVE.



* 140 lb. hammer dropped 30 inches on 2 inch split spoon sampler

REMARKS: Water Table Depth = 3.1 ft (See Text)
Free Water Depth = 10.0 ft (See Text)

GORE ENGINEERING, INC.

Soil and Foundation Investigations
Metairie, Louisiana

Job No. 7729

Boring No. B-4 Lat: N30d00m35.1s Long: W90d30m48.6s

LOG OF BORING AND TEST RESULTS

Date Boring Drilled: 27 June 2001

Project: CONSTRUCTION DEBRIS LANDFILL - LA. HIGHWAY 3127 - ST. CHARLES PARISH, LOUISIANA
FOR: KILLONA VENTURES

CITYWIDE TESTING & INSPECTIONS, INC. - ENVIRONMENTAL CONSULTANTS - NEW ORLEANS, LOUISIANA

Recorded By: Don Tusa

Sample No.	SAMPLE Depth in Feet		STRATUM Depth in Feet	VISUAL CLASSIFICATION	Blows per Foot	Symbol Log	Scale (feet)	UNCONFINED COMPRESSION (qu) (lbs./sq.ft.)	WATER CONTENT (percent)	UNIT WEIGHT (lbs./cu.ft.)		ATTERBERG LIMITS		
	From	To								DRY	WET	L.L.	P.L.	P.I.
1	.0	.5	.0	LOOSE BROWN SILTY FINE SAND			0							
2	1.5	2.0	2.0											
3	3.5	4.0		SOFT TO MEDIUM STIFF GRAY & TAN CLAY			5	930	51.2	73.0	110.4			
4	5.5	6.0		W/ TRACE WOOD				1135	49.8	67.6	101.3			
5	7.5	8.0	7.0	MEDIUM STIFF GRAY CLAY W/ TRACE WOOD & ORGANIC				1145	42.9	75.9	108.5			
6	9.5	10.0	8.0	MEDIUM STIFF GRAY CLAY W/ ORGANIC & TRACE WOOD			10	1135	64.0	59.5	97.5			
7	11.5	12.0		SOFT GRAY CLAY				760	77.4	52.5	93.2			
8	14.5	15.0		W/ TRACE WOOD			15	560	92.4	45.7	88.0			
9	19.5	20.0	16.5	VERY SOFT GRAY ORGANIC CLAY W/ WOOD			20	355	131.6	36.3	84.1			
10	23.5	24.0	21.5	VERY SOFT GRAY CLAY W/ TRACE ORGANIC				410	65.6	58.0	96.1	108	47	61
11	24.5	25.0	24.5	LOOSE GRAY SILTY FINE SAND W/ MUCH SHELL			25							(17)
12	29.5	30.0					30		19.0					(11)
13	34.5	35.0	31.0	SOFT GRAY CLAY W/ SILT & TRACE ORGANIC				675	33.9	84.6	113.3			
14	36.0	36.5	35.5	STIFF GREENISH GRAY & REDDISH TAN CLAY W/ SILT			35	2210	28.5	92.9	119.4			
15	39.5	40.0	40.0				40							
16	41.0	41.5		STIFF LIGHT GRAY & REDDISH TAN SILTY CLAY				3850	21.7	103.9	126.4	44	12	32
17	44.5	45.0		(W/ SHELL FRAGMENTS @ 49.5'-50.0')			45							
18	49.5	50.0	50.0				50	3510	34.5	85.0	114.3			
19	51.0	51.5						3100	39.1	80.0	111.3	81	24	57
20	54.5	55.0		STIFF REDDISH TAN & LIGHT GRAY CLAY			55	3335	44.1	75.8	109.2			
21	59.5	60.0	60.0				60	3350	34.3	85.3	114.6			

NOTE: VALUES IN PARENTHESES () INDICATE PERCENT PASSING NO. 200 SIEVE.



* 140 lb. hammer dropped 30 inches on 2 inch split spoon sampler

REMARKS: Water Table Depth = 3.1 ft (See Text)
Free Water Depth = 6.0 ft (See Text)

GORE ENGINEERING, INC.

Job No. 7729

Soil and Foundation Investigations
Metairie, Louisiana

Boring No. B-7 Lat: N30d00m26.6s Long: W90d30m57.7s

LOG OF BORING AND TEST RESULTS

Date Boring Drilled: 28 June 2001

Project: CONSTRUCTION DEBRIS LANDFILL - LA. HIGHWAY 3127 - ST. CHARLES PARISH, LOUISIANA
FOR: KILLONA VENTURES
CITYWIDE TESTING & INSPECTIONS, INC. - ENVIRONMENTAL CONSULTANTS - NEW ORLEANS, LOUISIANA

Recorded By: Don Tusa

Sample No.	SAMPLE Depth in Feet		STRATUM Depth in Feet	VISUAL CLASSIFICATION	Blows per Foot	Symbol Log	Scale (feet)	UNCONFINED COMPRESSION q_u (lbs./sq.ft.)	WATER CONTENT (percent)	UNIT WEIGHT (lbs./cu.ft.)		ATTERBERG LIMITS		
	Front	To								DRY	WET	L.L.	P.L.	F
1	0.0	0.5	0.0	VERY SOFT BROWN SILTY CLAY										
2	1.5	2.0	1.5	VERY SOFT BROWN & TAN CLAY W/ SILT				205	37.7	81.0	111.5	68	22	26
3	3.5	4.0	2.5	MEDIUM STIFF TAN & GRAY CLAY W/ SILT				1000	40.6	77.4	108.8			
4	5.5	6.0	5.0					785	72.8	56.4	97.5			
5	7.5	8.0						360	101.8	44.2	89.2	138	35	103
6	9.5	10.0		VERY SOFT GRAY CLAY			10	270	100.7	44.6	89.5			
7	11.5	12.0		W/ WOOD, ORGANIC & SHELL				390	94.1	46.7	90.6			
8	14.5	15.0					15							
9	18.0	18.5	16.5	VERY SOFT BROWN ORGANIC CLAY				380	154.4	31.6	80.3	194	79	115
10	19.5	20.0	19.5	LOOSE GRAY SILTY FINE SAND W/ WOOD			10	880	27.9	89.5	114.5			(14)
11	21.0	21.5	20.0					105	48.1	70.2	103.9			
12	24.5	25.0		VERY SOFT GRAY CLAY			25							
				W/ ORGANIC & WOOD										
13	29.5	30.0					30	285	44.8	74.9	108.5			
14	32.5	33.0	31.0	VERY STIFF				6155	22.3	102.5	125.3			
15	34.5	35.0		GREENISH GRAY & REDDISH TAN CLAY			35	6775	23.5	102.5	126.6			
16	39.5	40.0					40	4670	31.6	91.6	120.6			
17	44.5	45.0					55							
				STIFF TO VERY STIFF										
				REDDISH TAN & LIGHT GRAY CLAY										
18	49.5	50.0		(FISSURED @ 49.5'-50.0')			50	675	75.0	54.3	95.1			
19	54.5	55.0					55	2070	37.4	81.8	112.4			
20	59.5	60.0	60.0				60	2145	40.7	76.5	107.7			

NOTE: VALUES IN PARENTHESES () INDICATE PERCENT PASSING NO. 200 SIEVE



* 140 lb. hammer dropped 30 inches on 2 inch split barrel sampler

REMARKS: Water Table Depth = 1.0 ft (See Text)
Free Water Depth = 10.0 ft (See Text)

GORE ENGINEERING, INC.

Soil and Foundation Investigations
Metairie, Louisiana

Job No. 7729

Boring No. B-8 Lat: N30d00m31.5s Long: W90d30m47.1s

LOG OF BORING AND TEST RESULTS

Date Boring Drilled: 29 June 2001

Project: CONSTRUCTION DEBRIS LANDFILL - LA. HIGHWAY 3127 - ST. CHARLES PARISH, LOUISIANA
FOR: KILLONA VENTURES
CITYWIDE TESTING & INSPECTIONS, INC. - ENVIRONMENTAL CONSULTANTS - NEW ORLEANS, LOUISIANA

Recorded By: Don Tusa

Sample No.	SAMPLE Depth in Feet		STRATUM Depth in Feet	VISUAL CLASSIFICATION	Blows per Foot	Symbol Log	Scale (feet)	UNCONFINED COMPRESSION (Qu) (lbs./sq.ft.)	WATER CONTENT (percent)	UNIT WEIGHT (lbs./cu.ft.)		ATTERBERG LIMITS		
	From	To								DRY	WET	L.L.	P.L.	P.I.
1	0	0.5	0	LOOSE BROWN SILTY FINE SAND			0							
2	1.5	2.0	2.0	LOOSE TAN SILTY FINE SAND				940*	24.2	90.8	112.8	27	--	NP
3	3.5	4.0	4.0	MEDIUM STIFF TAN & GRAY SILTY CLAY				1030*	31.8	84.9	111.9			
4	5.5	6.0					5	1310	43.8	75.1	108.0			
5	7.5	8.0												
6	9.5	10.0		MEDIUM STIFF GRAY CLAY W/ TRACE ORGANIC & WOOD			10	1010	73.0	56.0	96.9	106	33	73
7	11.5	12.0												
8	14.5	15.0					15	1050	58.5	63.4	100.5			
9	16.5	17.0	16.0	VERY SOFT BROWN & GRAY ORGANIC CLAY				410	155.7	30.7	78.6			
10	19.5	20.0	19.0	VERY SOFT BROWN HUMUS			20	390	122.2	36.5	81.2			
11	24.5	25.0	22.0	VERY SOFT GRAY CLAY W/ SAND LENSES & TRACE ORGANIC			25	340	74.7	54.1	94.6	88	29	59
12	29.5	30.0	27.0	MEDIUM DENSE GRAY SILTY FINE SAND W/CLAY LAYERS			30	1020*	32.0	86.5	114.2			(16)
13	31.5	32.0	30.0	MEDIUM STIFF GRAY CLAY W/ SAND LAYERS				1210*	30.3	88.0	114.6			
14	34.5	35.0	34.0	LOOSE GRAY FINE SAND W/ MUCH SHELL			35		14.8					(9)
15	39.5	40.0	36.0	VERY STIFF GREENISH GRAY & REDDISH TAN CLAY			40	5040	22.0	105.3	128.5			
16	44.5	45.0	42.0	VERY STIFF LIGHT GRAY & REDDISH TAN CLAY W/ SILT			45	5120	24.9	94.8	118.4			
17	47.5	48.0	46.0	MEDIUM STIFF REDDISH TAN SILTY CLAY				1210	31.5	87.4	114.9			
18	49.5	50.0	49.0				50	1240*	28.9	92.5	119.2			
19	54.5	55.0	55.0	MEDIUM DENSE REDDISH TAN SILTY FINE SAND			55							
20	56.0	56.5		STIFF REDDISH TAN CLAY W/ SILT LENSES (FISSURED)				1800	33.2	83.6	111.3			
21	59.5	60.0	58.0	VERY STIFF REDDISH TAN CLAY (FISSURED)			60	3970	36.9	84.8	116.1			

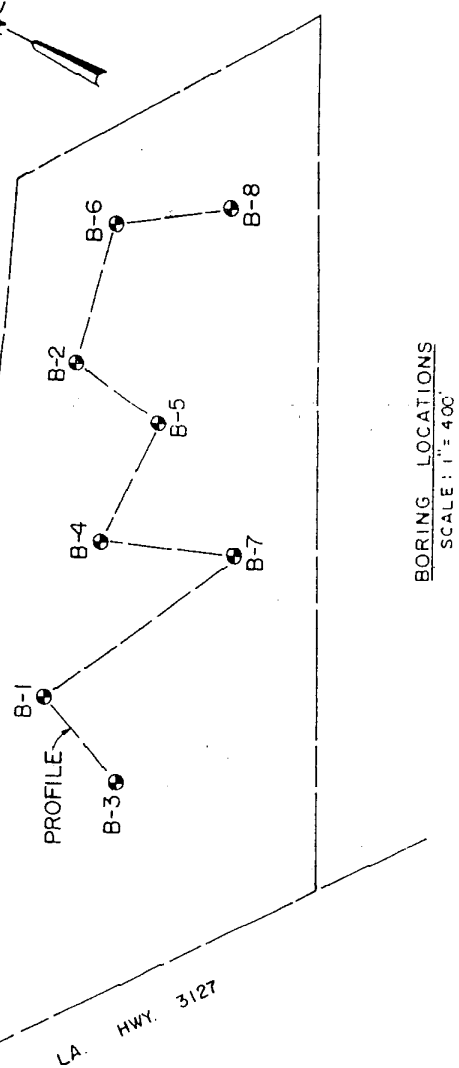
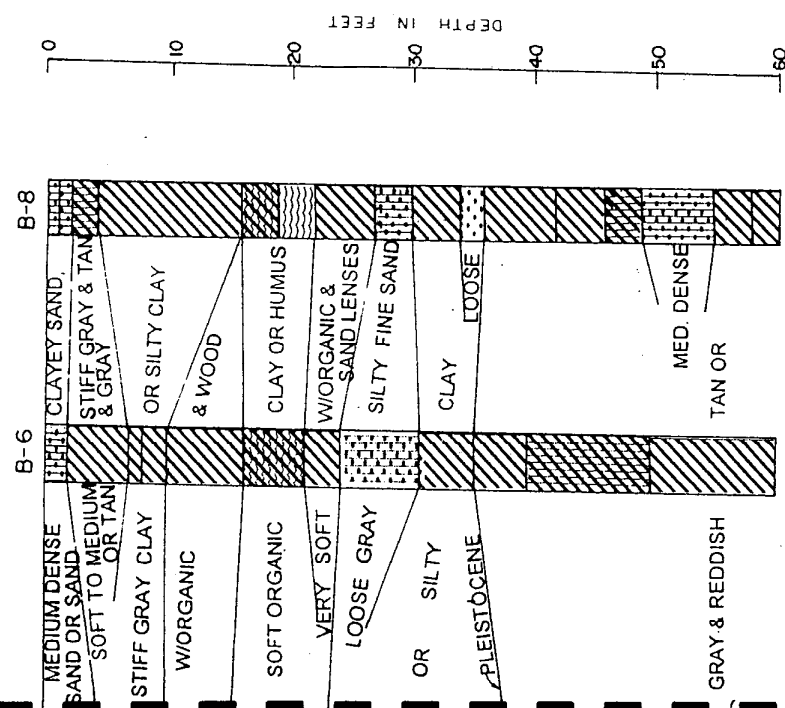
NOTE: VALUES IN PARENTHESES () INDICATE PERCENT PASSING NO. 200 SIEVE.



*140 lb. hammer dropped 30 inches on 2 inch split spoon sampler

REMARKS: Water Table Depth = 3.2 ft (See Text)
Free Water Depth = 6.0 ft (See Text)

STRATIGRAPHIC CROSS SECTION



SUBSOIL INVESTIGATION
CONSTRUCTION DEBRIS LANDFILL
LA. HIGHWAY 3127
ST. CHARLES PARISH, LOUISIANA

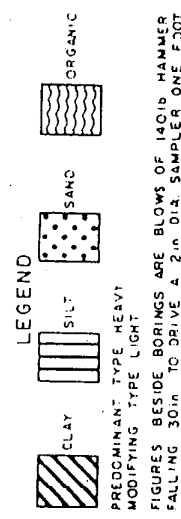
BORING LOCATIONS AND SUBSOIL PROFILE

FOR
KILLONA VENTURES

CITYWIDE TESTING & INSPECTIONS, INC.
ENVIRONMENTAL CONSULTANTS
NEW ORLEANS, LOUISIANA

JULY, 2001

GORE ENGINEERING, INC.



FIGURES

